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UNIVERSITY OF ALBERTA

GRIEF AND STRESS REACTIONS IN FAMILY MEMBERS OF HOMICIDE VICTIMS

BY

M. ELIZABETH STEVENS-GUILLE ©

A thesis submitted to the Faculty of Graduate Studies and Research
in partial fulfillment of the requirements for the degree of
DOCTOR OF PHILOSOPHY

IN

COUNSELING PSYCHOLOGY

DEPARTMENT OF **EDUCATIONAL PSYCHOLOGY**

EDMONTON, ALBERTA

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DEDICATION

This thesis is in memory of:

Chantelle, 2 years old
Clinton, 13 years old
Jeffrey, 16 years old
Dean, 20 years old
Debbie, 34 years old

and dedicated to all family survivors of homicide victims.

This thesis is dedicated to my children Karen, Rolin, Gillian and Iain for whom I am thankful every day; and to my husband Michael whose support has meant so much.

ABSTRACT

In a Western Canadian study, family survivors of homicide victims were investigated up to six years retrospectively to discover evidence of stress and grief reactions. In addition cognitive assumptions about changes in their world were measured. Instruments used in the survey were the Texas Revised Inventory of Grief (Fashingbauer, 1981), the Symptom Checklist 90 – Revised (Derogatis, 1985), the Purdue Post-Traumatic Stress Disorder Scale (Hartsough, 1986), and the World Assumption Scale (Janoff-Bulman, 1989). A thematic analysis of perceived helpfulness in grief resolution was also conducted.

Results indicate that no significant differences exist among four groups of family survivors of homicide victims on grief and traumatic stress measures (peer support, counseling, peer support and counseling, and no intervention). When compared to the normal population all groups displayed significantly elevated scores on the TRIG, SCL-90-R, and PPTSD scale. No group recorded a decrease in grief over five years predicted as a function of time. Men registered no differences from women in present feelings of grief. Perceived closeness of the relationship was found to be a significant variable. Family survivors of homicide victims indicated a belief in more random influences in their lives and less meaningfulness in their world than a sample of non traumatized Albertans. Qualitatively, respondents most frequently indicated concerns about the police and judicial system, the importance of feelings of the family survivors of a homicide victim and the importance of support from friends, family, co-workers and professionals.

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CHAPTER 1

Introduction

The focus of the present study is on the beliefs, stress, and grief reactions of family members whose lives have been disrupted by the murder of one of their members. In 1990 656 homicides occurred in Canada, one less than the previous year. In 1990 Saskatchewan reported the highest provincial homicide rate (3.60 per one hundred thousand) followed by Manitoba (3.58), and British Columbia (3.51). Stabbing incidents were up 27% and shooting deaths were lessened by 40% from the previous year. Thirty-seven percent of all homicides in Canada were committed by a family or common-law relation of the victim. Homicide continues to represent less than 1% of all violent crimes reported in Canada. The homicide rate in the United States of America (23,650) translates into a rate of 9.1 which is almost four times higher than the Canadian rate of 2.7. The trend in Canada has remained relatively stable over the last ten years but has fallen slightly since the 1970s (Juristat, 1990). When the statistics are examined it is not surprising that little information is available regarding the effects of homicide on family members. For those people who have lost a loved one to homicide the effects are profound and long lasting.

The grief experienced by families of homicide victims is at once the same and different than that experienced by most bereaved individuals. It is the same in that grief must be fully experienced in order to come to terms with the loss. Those who work with grief propose that, "The first task of grieving is to come full face with the reality that the person is dead" (Worden, 1982). Coming full face to the death of a loved one must be worked at. It has been termed grief work (Lindemann, 1944). Families of homicide victims must also come to terms with the idea that there is nothing they can do to restore their loved one's life (McCann & Pearlman, 1990). Figley (1986) suggests that from empathy comes susceptibility to psychological stress. That is, family members experiencing deep empathy for the plight of a dying loved one may be prone to evolving real personal distress. "The grief reaction when the loss of a loved one is unexpected is more profound, but when the loss is compounded by violence, grief reactions of the survivors are thought to be the most severe and enduring" (Rinear, 1984). The process of experiencing grief or grief work, therefore, becomes complicated by the manner of death, the amount of suffering the loved one is likely to have endured, and the intensity of interest that surrounds a forbidden act. In addition, surviving family members must endure police investigations and the experience of being spectators rather than participants in the eyes of the court. They may be avoided by people who do not know what to say precisely when friendship is most necessary. They may become victims of the media and details of their family life written for the world to read. Raphael and Middleton (1987) theorize that homicidal and other violent deaths are "also likely to lead to special problems for victim/ survivors such as post traumatic stress disorder, intense anger, helplessness, and grief where constriction of life and personality [of the survivor] is noted."

How this special type of grief is resolved is largely a matter of speculation. A number of models of grieving for anticipated deaths have been proposed. They outline various psychological steps needed before those who grieve can come to a meaningful resolution. More recently, theory has been generated to help identify stages of thinking faced by people who find all their expectations of life shattered. The shock of discovering the violent death of a loved one can produce severe shattering of schemas in all areas. This shock can result in acute psychological distress that involves the entire self (Bard, Arnone & Nemiroff, 1986; Masters, Friedman & Getzel, 1988). Family members may not know or fully understand what happened to the victim. As a result, family members may develop their own disturbed mental scenarios, but not have the knowledge that this is a typical reaction. Consequently they will not have the opportunity to explore and repair their damaged schemas. In many instances it is helpful to discuss fears and worries with a friend or mental health professional. A route less well known is to seek support from others who have encountered similar experiences.

There has been some work to suggest that peer support is an important component of grief resolution, although the amount of time needed for mourners to come to this resolution is a matter currently under debate. It has usually been assumed that all interactions with friends and neighbours trying to provide support to a bereaved individual is positive. Parkes' (1972) seminal study with widows demonstrated that this is not always the case. The principle focus of this study is the kinds of support that people found to be helpful or not helpful through out their grieving process and by whom it was offered.

There are very few support groups for surviving families of homicide victims in Western Canada. Manitoba is the only western province where a permanent organization exists for this population. Alberta has a more general victims' organization located in Edmonton. This group was established by bereaved parents for families of teenage homicide victims following a series of murders in

British Columbia and Alberta. Saskatchewan and British Columbia do not have an organized group for either crime victims or murder victims, although all provinces have support group organizations for rape victims. There are, however, various groups available for bereaved individuals although the prairies, in particular, are sparsely populated. Since support groups tend to gather in large towns or cities, it was thought that the best way of discovering how people in all areas of western Canada were coming to terms with the homicide of a family member was to canvas the entire population. The aim of this study was to examine the grieving patterns of various family survivors of a homicidal death, to establish if support group participation facilitates a more timely, more effective resolution of grief and traumatic reactions compared with people who have not participated in a support group.

Research in the area of homicide is limited. To date there has been, in terms of subjects, one large empirical study in the United States of America (Rinear, 1984) and one relatively small empirical study (Amick-McMullen, Kilpatrick, Veronen, & Smith, 1989). Rinear examined grief reactions of parents who had lost a child by homicide. The parents were all members of a national support group called Parents of Murdered Children. In Canada, an equivalent group does not exist nor has any research been conducted. The focus of the present study is an investigation into emotional reactions of all family members rather than parents, to the murder of one or more of their own. The investigation is two part. It permits examination of both grief reactions and stress reactions. Stress reactions investigated include theories of meaning ascribed by victims to their world and post-traumatic stress disorder. In particular, the responses of people who have sought emotional support from a group setting will be examined in comparison with emotional reactions of those who have not participated in a support group or sought psychotherapy.

Any discussion of grief and stress reactions pre-supposes an overlap of information and recognizes that all people are unique and interact with their environment based upon personality, physiological, and cultural factors. In order to clarify the complexities involved with grief and stress reactions particular to families of a homicide victim, review of the literature has been separated into two parts.

An initial discussion of models of grief provides a basis for understanding the process of grief resolution in Chapter I. Much of the work is predicated upon existing literature about bereavement from death due to natural causes, sudden bereavement, and suicide. The difficulties which prolong grief resolution, or are considered to be extreme, can be understood in relation to support groups and perceived emotional support for people who have found their world shattered by the sudden, intentional violence of another person. Chapter II is a review of the impact murder of a family member holds as post-traumatic stress. The literature reviewed will address ideas generated from the fields of victimology and traumatic stress.

Review of the Literature for Grief

The purpose of the present section of the review of the literature is to provide a context in which the special grief of family members of a homicide victim can be understood in relation to theories of grief that apply to all.

Grief, Mourning and Bereavement

"Letting go of someone or something we love is not an easy task" (Sanders, 1989). Some time in our lives we love. We are also aware that death will inevitably separate us from our loved ones, but we usually ignore the idea until we are faced with the reality of death. Reactions to our personal loss vary. For some, the finality of death is never accepted. For others, resolution of grief is painful but steady. Still others experience pain without obvious indications. There are many ways that the bereavement process has been understood. Literature examined grief in relation to time and culture before psychology became a science. In the last century theories of grief have evolved in the psychological literature.

Models of Grief

Psychoanalytic theory

Like many Victorians, Freud was fascinated with death and proposed that each person was caught in an unconscious struggle between death instincts (thanatos) and life instincts (eros). His concept of loss, articulated in *Mourning and Melancholia* (Freud, 1917) became the cornerstone of psychoanalytic thought about death, depression, and grief. According to Freud the main task of mourning was to detach the survivors' memories and hopes from the dead. "Against this demand a struggle of course arises... [which] can be so intense that a turning away from reality ensues, the object being clung to through the medium of hallucinatory wish-psychosis" (p. 126). Freud proposed that when the struggle was over, with the work of mourning carried through, the survivor was free to reinvest energy in another person. To Freud grief was a normal reaction to the death of a loved one. He considered the period of bereavement to be a special time but not clinical in nature. He did, however, consider ambivalent feelings towards the dead person an exception. He called these exceptions "obsessive reproaches" or obsessional states of self denigration created by the ambivalent feelings. Sanders notes that these so called clinical reactions "are now considered to be the rule rather than the exception" (p. 25).

According to Freud feelings can become introjected so that the person incorporates attitudes or characteristics of the dead person as their own. This observation was elaborated by Otto Fenichel (1945) who thought that introjection served a specific purpose. He theorized that introjection acts as a buffer by preserving the relationship so that the process of releasing the love object can take place. Sanders (p. 27) notes that 'This is often seen when funerals are planned. Services are carried out as if the deceased were there: would he want flowers, what type of service would she prefer, etc." Freud proposed that psychotic melancholia occurs when the loss becomes a subjective loss of part of one's own ego that, in turn, becomes a source for hostility and, finally, rejection and depression.

Freud's personal experience with death, upon the death of his beloved grandson, challenged his clinical detachment and caused him to grieve that "everything has lost meaning for me" In a letter to Binswanger he commented that "we shall remain inconsolable and will never find a substitute... And actually this is how it should be; it is the only way of perpetuating that love which we do not want to relinquish" (1929, p. 186). Freud did not articulate these feelings or the change of attitude in any publication but he clearly had reorganized his thinking about grief and remained ambivalent about its process.

Attachment theory

A significant contribution to the early development of bereavement studies was made by John Bowlby (1969-80) who explored the occurrence of mourning in animals as a result of his interest in the attachment process and found several similarities with human mourning behavior. Bowlby defined those people loved by humans and/or animals as attachment figures. He considered that attachments arrive from a need for security and safety, that they develop early in life, and are usually directed toward a few specific individuals. The attachment is considered to be normal behavior for children and adults. Bowlby contended that attachment is not merely an expression of biological needs but of affective needs within humans and animals (Bowlby, 1977). Bowlby concluded that for a child the quality of the relationship with parents was paramount to the ability of a child to form attachments in later life.

"The immense value of Bowlby's work lies in his ability to examine grief as a characteristic that is adaptive both in animals and in humans and therefore universal" (Sanders, 1989, p.33). He proposed that grief was our way of adapting to the new reality of the death of an attachment figure. Because the attachment figure was not only threatened but lost, the reactions provoked within an individual are severe. Grief, therefore, was a subjective experience from the loss of a loved object.

Bowlby theorized that aspects of separation were predictable and were evident in animals as well as humans. He cites the occurrence of this behavior in the young of almost all species of mammals. These observations have been supported by others interested in animal behavior. Darwin described the similarity of the sorrow of animals and children (1872). Lorenz (1963, in Parkes, 1972, p.40) outlined in detail the reaction of the separation of the greylag goose from its mate. Initially, the survivor experiences anxiety and protest. In the animal world searching and crying are often successful mechanisms in retrieving a lost attachment figure. At a later, unspecified time, the survivor experiences sadness and depression before subsequent reorganization. Reorganization includes the acquisition of new skills and old ones discarded. It is also "a process of reshaping internal representative models so as to align them with the changes that have occurred in the bereaved life situation" (p.94).

Bowlby did not consider identification in the Freudian sense as necessary to the grieving process. He commented that grief without identification might seem like "Hamlet without a prince," but he contended that the role of identification was subordinate, occurred only sporadically, and, moreover, always indicated pathology (Vol. 3, p. 30). His contemporary Otto Fenichel (1945) separated introjection into normal and pathological processes. Pathological responses occur when ambivalent feelings about the deceased served to immobilize resolution. He contended that the greater the love-hate relationship, the greater the self-reproach, and the greater the grief. The latter observation supports Bowlby's somewhat dismissive comment about pathology while at the same time refocusing attention on universal normal grieving patterns.

"The mourning responses of animals show what primitive biological process are at work in human beings " (Worden, 1982, p.9). Worden states that "there is evidence that all humans grieve a loss to some degree." Bowlby's theory has been substantiated by anthropologists who find that there is almost a universal attempt to regain the lost love object which may or may not be accompanied by a belief in the afterlife where one will be reunited with the loved one. An attempt to regain the lost love object has been observed to be less prevalent and less extreme in preliterate societies (Krupp and Kligfeld, 1962).

Grief Work

One of the earliest attempts to identify normal grief behaviors in a systematic way was initiated by Erich Lindemann (1944). His pioneering work is especially apt for this discussion in that his conclusions were based upon 101 interviews of families of people who had been killed in Boston's Coconut Grove fire. A busboy trying to change a light bulb lit a match, setting fire to a decorative palm tree; the fire spread and engulfed the nightclub. Nearly 500 supporters of a football team who were celebrating a victory lost their lives.

Lindemann (1944) and his colleagues subsequently worked with family members who had lost loved ones in the holocaust. His paper "The symptomatology and management of acute grief" published in the *American Journal of Psychiatry* is regarded as a classic in the field of bereavement. Although many writers discuss Lindemann's work with regard to bereavement, until recently few have noted that his initial findings are based upon accounts of people who were faced with the sudden and un-prepared for death of a loved one. Hence, the findings have more relevance to unexpected bereavement such as that experienced by families of homicide victims than other types of bereavement. Lindemann's work is regarded as fundamental in the field of post-traumatic stress as well as bereavement.

Lindemann defined the "bereavement syndrome" as a pathological grief reaction characterized by 1) somatic disturbance or bodily disturbance of some type, 2) preoccupation with the image of the deceased, 3) guilt relating to the deceased or circumstances of the death, 4) hostile reactions, and 5) the inability to function as one had before the loss. A sixth characteristic noted by Lindemann, foreshadowed by Freud and Fenichel, was the development in patients of traits of the deceased. He suggested that pathological grief occurs as a result of attempts to avoid experiencing intense distress. He contributed the term grief work as recovery from a delayed or disturbed grief.

In Lindemann's view grief work was necessary so that the bereaved could move beyond the lost relationship to the formation of new relationships. Lindemann theorized that normal grief had three stages comprised of 1) shock, 2) despair, and 3) recovery. He described exaggerated grief as an abnormally prolonged grief reaction with neurotic symptoms and abbreviated grief as short lived but genuine, replaced by another love object. Lindemann speculated that inhibited grief led to somatic complaints especially in children and the elderly. His last two categories of grief were anticipatory grief and delayed grief. Anticipatory grief was a premature mourning in advance of a death with the result that the actual death resulted in an abbreviated mourning. Lindemann theorized that delayed grief lasted a period up to several years until a grief reaction either normal or exaggerated was triggered by an event related to the original loss. Lindemann's terms and the notion of stages of grief and Bowlby's phases of grief have been the foundations for much of current grief theory.

Grief stage theory

Most people are now familiar with the stages of grief popularized by Kubler-Ross (1969). Initially the stages identified by Kubler-Ross were thought to be consecutive steps, characterized by specific emotional reactions and attitudes encountered by the terminally ill patient. The stages are 1) denial and isolation, 2) anger, 3) bargaining, 4) depression, and 5) acceptance which will lead toward hope. In later work Kubler-Ross emphasized that people do not always experience the stages of death in an orderly and sequential fashion, but that some stages may be re-experienced and cyclical. Movies such as *All That Jazz* emphasized the linearity of Kubler-Ross's stage theory. In practice it seems that these five stages of dying have often been adopted by grieving survivors of a homicide victim as a means of understanding their own emotions following the death because they are familiar with the ideas presented by Kubler-Ross. However, the difficulties associated with clearly defining extremely complex reactions have been addressed by a number of writers.

Phases of grief

Parkes (1970, 1972) initially posited the phases of grief which vary according to the writer and summarized as:

Phase 1. Initial shock and numbness. When a person is confronted with the news of a death, especially if the death is unexpected, a feeling of shock is commonly reported. This shock consists of a sense of disbelief and an emotional numbness. The period of shock can last from a few minutes to as long as a month before the pangs of grief as described by Lindemann (1944) occur.

Phase 2. Searching and yearning. This is the phase associated with the severe pangs of physiological grief. During this period, the bereaved individual intensely "pines" for the deceased. Drawing upon Bowlby's work Parkes (1972) suggests that this process is rooted in the animal need to locate a companion who has become separated, and comments on the survival value of searching for a lost mate. This searching is often accompanied by experiences of the dead person's presence (Rees, 1971; Marris, 1958). During this phase anger plays an important part in the grief process.

Phase 3. Disorganization. The bereaved usually finds it difficult to function in the environment in the third phase. Despair and disorganization set in when the individual concludes the searching stage and accepts the loss as irreversible. When this occurs the symptomotology of grief changes to one more closely matching depression. The bereaved experiences feelings of loneliness, is often sleepless and restless, and has difficulty re-establishing social patterns and behaviors. Feelings of loyalty to the deceased may prolong this stage.

Phase 4. Reorganization. Ultimately, when the process of grieving occurs normally, the bereaved individual is able to liberate his/her energies sufficiently from the deceased to reconstruct his/her social life. At this point there is the relief from the sense of depression characteristic of the third stage, and the grief process can be considered as being concluded.

Tasks of grief

For Worden (1982) tasks for the bereaved are of mourning rather than grief resolution. He writes that normal grief is extensive and varied and can be described under four general categories: a) feelings, b) physical sensations, d) cognitions, and c). behaviors. He suggests that the clinician needs to understand who the person was in relationship to the bereaved and the nature of the attachment. In addition, Worden proposes that some idea about how the person has grieved previous losses would be helpful as would the personality variables of the bereaved and the kind of social subculture accepted by the mourner.

While all these are important considerations, Worden's most significant contribution to the bereavement literature changes focus from the phases or stages of grief to a more pro-active stance taken in the proposal that there are specific tasks to be accomplished in the grief process. He outlines the four tasks of mourning as a) to accept the reality of the loss, b) to experience the pain of grief, c) to adjust to an environment in which the deceased is missing, and d) to withdraw emotional energy and reinvest it in another relationship. Worden maintains that

> One benchmark of a completed grief reaction is when the person is able to think of the deceased without pain. There is always a sense of sadness … but it is a different kind of sadness… it lacks the wrenching quality it previously had (pp. 16).

For mourners who want to know if the pain they are experiencing will change or diminish this is important information. It acknowledges that the loved one will not be forgotten, but rather the experience will be integrated into the mourner's life; something upon which Freud at the end of his life had speculated.

In the preface of *Surviving When Someone You Love was Murdered* (Redmond, 1990, p. x), Rando contends that one of the major problems confronting mental health providers is that models and schemata have been over utilized not only in an effort to understand the bereaved but as a method of reducing stress for the caregiver. She contends that the overuse of theories of grief has led to two problems. The first is that mourners are categorized to the detriment of individual reactions and responses. The second is that "while the contents of the mourning process may be different in terms of who has been lost, the experience of the mourning process is always the same." Rando has theorized that of 29 individual variables found to influence grief responses three categories of psychological factors emerge. These are a) psychological factors including the characteristics and meaning of the lost relationship, the mourner's personal characteristics, and the specific circumstances of the death; b) social factors; and c) physical factors. As these factors are unique to the phenomenology of each mourner, analysis of each is important for the caregiver to understand before providing an intervention.

Complicated Mourning

Centrality of the relationship to the bereaved

There is speculation that reactions to the death of a family member depend upon the centrality of the relationship to the bereaved (Bugen 1977). This centrality does not necessarily depend upon familial relationship, but on the emotional attachment of the bereaved to the deceased. There are many cases where the grandparents, or another relation of a child, become the primary caregivers. In the event of the death of either the younger or the older of the dyad, it is assumed that a more severe grief reaction than is normally expected will occur. Similarly, one who cohabited with the deceased may have a grief reaction that is usually attributed to a spouse. Bugen (p.197) theorized that the centrality of the relationship was directly related to the extent and duration of the grief.

In addition, most of the literature suggests that unanticipated death occasions the most severe bereavement reaction (Sheskin & Wallace, 1976). For families of homicide victims both conditions are often present, leading workers in the field to believe that a high percentage of survivors exhibit unresolved grief reactions (Sprang, McNeil and Wright Jr., 1989). Grief is a normal reaction to significant loss and repressed grief will eventually manifest itself often in maladaptive forms (Widdison & Salsbury, 1990).

Grief reactions that are considered to be complicated are those that are normal but felt by the bereaved for an uncommonly long time or at an extremely high intensity. The absence of grief reaction is also considered to be a complicated grief reaction. Depression has been found to correlate significantly with complicated bereavement. Lindemann (1944) and Parkes (1972) both suggest that grief may be defined as a syndrome with psychological as well as somatic symptoms. Work in this area was carried out by Zeanah who reported an association between panic attacks and images of a deceased loved one in lack of resolution of mourning in three patients (1988). Parkes' (1970) seminal study investigated the relationship between grief and depression in 22 widows. According to Parkes, acute grief reactions frequently become chronic necessitating psychiatric intervention. He also noted that somatic complaints increase after the death of a loved one. In his sample, consultation with a physician increased by nearly half and the amount of sedation prescribed increased by seven times. This was borne out by research that indicates a high incidence of illness, accident and death among bereaved people (Kapiro, Koskenvico & Rita, 1987).

In a landmark Australian study Raphael (1977) investigated the characteristics of widows who could not cope well emotionally following the death of their spouse. Raphael discovered that the following variables were significant predictors of widows who were not going to do well one or two years later:

1. A high level of perceived nonsupportiveness in the bereaved's social network response during the crisis.
2. A moderate level of perceived nonsupportiveness in social network response to the bereavement crisis occurring together with particularly traumatic circumstances of the death.

3. A previously highly ambivalent relationship with the deceased, traumatic circumstances of the death, and any unmet needs.
4. The presence of concurrent life crisis (Raphael, 1977).

Sheldon (1981) found that the strongest predictor of later distress for widows was being younger than most widows and coming from a lower socioeconomic background. He found that there were four main predictors important to the adjustment of widows. They were: sociodemographic variables, personality factors, social support variables and the meaning of the death event.

Parkes (1975) used a six variable scale to identify family members in need of support:

1. High level of yearning 3-4 weeks past bereavement.
2. Desire for one's own death in the first months following the loss is present.
3. Low social class of the family.
5. High anger 3-4 weeks following the death.
6. High self reproach at the first month assessment.

Grief in families of homicide victims

Raphael and Middleton (1987) speculate that some reactions following loss are non-specific (e. g.) anxiety and distress reflecting the generally stressful nature of the experience. The bereaved from homicide becomes preoccupied with images of the death scene that usually result in intrusive memories. The pangs experienced by these family members are "ego alien" (p.11) which is qualitatively different than poignant and nostalgic. Lazarus & Folman (1984) suggests that complicated bereavement occurs when the loss is socially unspeakable, which results in a conspiracy of silence. The reluctance to talk about the death or the loved one is damaging to a loved one who may need to communicate in order to resolve the death. Feelings of intense anger may serve to remove the mourner from others. Parkes (1972) found that the widows who were the most angry following the loss of their husbands also experienced the highest degree of social isolation. Guilt feelings are exacerbated (Worden, 1982). Ancillary to guilt and anger is the need to blame which seems to be pronounced in family survivors of homicide.

The grieving experience of family members who are bereaved as a result of homicide is characterized by social isolation and additionally complicated by a number of factors beyond their control increasing their sense of helplessness. Often families must deal with the media, the justice system, the curiosity of neighbours. In some cases the family is also called upon to justify the behavior of the loved one (Masters & Getzel, 1988). This secondary victimization generates other levels of symptoms and feelings in addition to the enormous burden of grief they already carry. Sprang, McNeil, and Wright (1989 pp. 159). observe that "although grief is a common human experience, mourning for families of murder victims is more profound, more lingering and more complex than normal grief."

The role of peer support and support groups for the bereaved

Maddison and Walker (1967) pioneered work with widows showing that those who perceived their social network interactions helped their grief by encouraging the expression of review of the lost relationship were more likely to resolve the loss without health problems thirteen months later. In contrast, those who perceived social support as unhelpful in these parameters were likely to suffer a poorer health outcome. Since that time the evidence for decreased health in the bereaved has become well established (Glick, Weis and Parkes, 1974; Parkes, 1972). Support groups have been found to be helpful for bereaved individuals from a psychological point of view and from that of physical well being.

Souter & Moore (1989) describe results of a post-intervention program for survivors of cancer as beneficial and very much appreciated by the survivors. Shneidman (1973) found that most survivors were grateful for the opportunity to discuss their disturbing feelings and problems. Similarly, Folken (1990) reported success with an afternoon talk group run by trained volunteers. Significantly, most research relies upon women who, it may be assumed, have a more verbal style of grieving than men. In one of the few studies of mixed gender support groups Sklar and Hartley (1990) report that "members shared many emotions and experiences commonly attributed to widows, widowers and other family members" (p.10). This result may be due to a self selection process where people who are aware they benefit from social interaction volunteer for group experience. Group experience differs from the concept of social network. Both are addressed in this study.

An early assumption of the social support literature was that interactions between network members were basically positive. Subsequent work has shown not all relationships are supportive, and that many constitute added stressors since they place high or conflicting demands on the individual (Gottlieb 1985). That it is difficult to judge accurately the benefits of a social support group is indicated by an investigation of other parameters. Measures of network size or frequency of interaction are less predictive than measures which take the quality and valence of interactions into account (Lyons, 1991). "One of the ironies of trauma recovery is that the event can disrupt social support networks at the very time they are most needed" (Solomon, 1986). As an example an Edmonton group (personal correspondence, 1990) expressed distress about the pressure they felt from friends to harm the killer in court. This experience led the survivor victims to question their actions and more importantly to question the quality of their friendships. Lessened confidence in the quality of friends led to feelings of isolation and feelings of resentment against people they had considered to be friends.

Klass (1988) concludes that social support systems for grieving parents are central to the quality of the resolution. Forrest, Standish and Baum (1982) found that for parental grief those in a support group did better than those not in a group. In a study that included both widows and parents Lehman, Wortman and Williams (1986) found that the most helpful social supports were a) contact with others who had experienced a similar loss, b) expressions of concern for the bereaved, c) providing an opportunity to ventilate, and d) a sense of "being there " or a willingness of the listener to share the world view of the mourner. The most unhelpful attempts at social support were cited as a) giving advice, b) encouraging recovery, c) enforced cheerfulness, and d) misplaced identification such as the expression "I know how you feel."

There is the possibility that people who seek social support groups may have more trouble dealing with their grief. However, in light of the fact that an inability to acknowledge the death by denial, repressed grieving and delayed grief are symptoms of complicated grief, willingness to seek support may also indicate emotional health. People who live in isolated areas must rely upon their social networks. For this reason perceived social support was investigated in the study as well as participation in a support group.

The relationship of time to grief resolution.

The length of elapsed time for those with unresolved grief may be a function of definition as well as an accurate measurement. Often, the term unresolved grief is used to connote grief that is absent, delayed, intensified or prolonged, but none of the descriptors has been operationalized or quantified. An alternate way of conceptualizing unresolved grief is to consider mastery of various tasks and phases. An advantage to this method is that it incorporates the multiple functions and demands of the grieving process and makes no presuppositions about normal, intensity or duration (Zisook & Lyons, 1990).

Lindemann (1944) suggested that the duration of grief reactions is variable and largely dependent upon the completion of "grief work although he concluded that most could be resolved in a matter of months." Parkes (1972) thought that a minimum of one year was needed to resolve grief. Bugen (1977) defined prolonged grief as that extending beyond a six month period subsequent to the death. Recent studies register a change in perception about the length of time necessary to come to an acceptance and resolution of grief. In 1980 Vachon noted that "the period of time considered to be appropriate for adjustment to conjugal bereavement has been steadily extended (pp. 1384)."

Murder trials often occur two years or longer after the crime. For many families, the resolution of their grief can not be completed until they face this hurdle. If the perpetrator is not caught, the family may experience overwhelming fear for long periods of time (Sprang, McNeil, Wright Jr., 1989). The estimate of time needed to resolve grief is constantly being increased. In a study of one thousand consecutive patients admitted to a psychiatric clinic Zisook and Lyons (1990) found that 21 percent of the sample scored as having unresolved grief. The mean number of years since the death among those who still experienced difficulty dealing with the loss was 11 years in contrast to the 14 years since the death reported by those not experiencing difficulty. The researchers commented that the " time elapsed since the death of a loved one underscores the tenacity and chronicity of unresolved grief". The current investigation into the incidence of unresolved grief in families of homicide victims was limited to five years. Given Zisook and Lyons (1990) results, it is expected that unresolved grief for families of homicide victims would extend beyond the five year period.

Summary

In this chapter information about theories of grief and of grief resolution was provided to explain the fundamental concepts upon which part of the research is based. Freud (1917) proposed that the main task of mourning was to detach the survivors' memories and hopes from the dead. In many ways this is still a difficult issue. Bowlby (1969) suggested that this intense despair and searching behavior was rooted in life preserving animal behavior, and that before one recovered the death must be established. He proposed that reorganization for the bereaved was a reshaping of internal mental representations to reality. These ideas coincide with Worden's (1982) theory that the first task of grief is to realize that the person was dead. Lindemann (1944) thought that grief work was necessary so that the bereaved could move beyond the lost relationship to the formation of new relationships. This idea seems to include the ability to put aside the hopes and dreams for the lost person referred to by Freud. Parkes (1970) built upon Bowlby's work and proposed that grief must be resolved in phases; Kubler-Ross (1969) popularized stages of grief while Worden (1982) contends that a more pro-active way of looking at grief is in a series of tasks.

Family members of murder victims encounter all of the identified phases and stages of grief and grief reactions usually more than once. The stages and phases usually overlap, which leads to increased confusion and disorganization for those who mourn. In addition they experience many, if not all of the described symptoms of post traumatic stress disorder. Raphael and Middleton (1987, pp. 10-11) comment that

> following a traumatic death, which may engender a post traumatic reaction, the bereaved becomes pre-occupied with images of the death scene, experiencing for instance, intrusive memories and nightmares. Such experiences are quite different from the usual preoccupation with the image of the lost person associated with powerful longings for his return, and pain when this does not occur. These issues require much further elaboration.

Chapter II discusses reactions of family members to the murder of a loved one in the context of post-traumatic stress. Trauma presents a different set of problems for these people to face as well as the difficulties inherent in grief resolution.

CHAPTER II

Review of the Literature

Post-Traumatic Stress

Chapter II discusses post-traumatic stress disorder in general and the relationship between family survivors of homicide victims and post-traumatic stress. It addresses theories of traumatic stress as well as specific symptomatology.

Introduction

"It is safe to say that there can be no question that homicide [as opposed to natural death] predisposes survivors to more complicated mourning and poorer bereavement outcomes. It is a type of loss which terrifies both the victims and those who observe them" (Rando, 1991 p. xiii). Members of the family of a homicide victim are forced to deal unprepared with the police, court system, and often sensationalist press; thereby, feeling victimized a second time (Bard & Sangrey, 1979). In this sense, survivors of homicide victims become secondary victims of a crime. By extension they become unwittingly and unwillingly crime victims. Not only must they attempt to come to terms with the death of their loved one; they must attempt to come to terms with the circumstances surrounding the death and images of the terror and perhaps pain experienced by their loved one. Often the murder has been committed by a person known to the family, and more often by a member of the family. The stress experienced by family members in this situation may be lengthy and can become almost unendurable. Symptoms exhibited by family members, although psychological in origin, are often manifested in physical behaviors and somatic complaints (Strobe & Strobe, 1983).

Grief as a stressful event

There is convincing epidemiological evidence that the loss of a close family member is a traumatically stressful event in all cultures (Holmes & Masuda, 1974). As well, there is consensus in the literature that bereavement can be the cause of physical and mental illness, (Strobe, & Strobe, 1983). Parkes (1972) views loss as a principal form of stress encountered by organisms. He outlines three stages of grief that clearly show death is a stressful event for the bereaved. Parkes theorizes that on a biological level an individual in the first stage of alarm retreats into a state of shock and alertness. He speculates that the shock reaction arms the survivor as a form of protection from whatever danger that exists. This is a survival mechanism common to both animals and humans, as are the subsequent stages. In the second stage of grief, the survivor searches for the lost love object. As previously mentioned, in the animal world this procedure often results in a successful reunion with the lost one. It is also considered to be the first try at a solution to the stress. Mitigation, the final stage proposed by Parkes, is a healthy adaptation to the reality of the death of the loved attachment object. This series of behaviors eventually allows the grieving person to progress to a renewed interest in intimacy. Because Parkes' major studies were of spousal bereavement, for him, intimacy is signal of grief resolution.

Lehman and Williams state unequivocally that "the death of a spouse or child is one of the most stressful events that a person during the course of his or her life experiences" (1987, pp. 218). Pynoos and Eth (1984) studied a group of children who had witnessed the homicide of a parent and were then compelled to participate in criminal justice proceedings. They found these children often exhibited symptoms of post traumatic stress disorder as well as a wide range of grief reactions. In her pioneering study with parents of murdered children Rinear (1985) noted that symptoms and reactions of parents of murdered children do not fully conform to currently existing models of grief and mourning, but more closely approximate symptoms cited as criteria for post-traumatic stress disorder.

Post traumatic stress disorder

Post traumatic stress disorder (PTSD) is the diagnostic label for a constellation of symptoms which may develop in survivors of trauma (Reid & Wise, 1989). The hallmark of the disorder is that an event outside most human experience has been sustained. The traumatic event is persistently reexperienced or assiduously avoided by the individual, who also experiences persistent symptoms of increased arousal. Post-traumatic stress disorder can be experienced within one month or after a delay of over six months. The symptoms are diagnosed as a disorder when they persist over a period of one month. They are considered to be indicative of the extreme stress suffered by people who are psychologically unprepared for extreme, unusual occurrences.

Diagnosis of post-traumatic stress disorder

The *Diagnostic and Statistical Manual of Mental Disorders* (DSM-III-R) (APA, 1987) places post-traumatic stress disorder in the section that describes anxiety disorders. It defines post-traumatic stress disorder as follows:

A. The person has experienced an event that is outside the range of usual human experience and that would be markedly distressing to almost anyone, e.g., serious threat to one's life or physical integrity; serious threat or harm to one's children, spouse, or other close relatives or friends; sudden destruction of one's home or community; or seeing another person who has recently been, or is being, seriously injured or killed as a result of an accident or physical violence.

B. The traumatic event is persistently reexperienced in at least one of the following ways:

(1) recurrent and intrusive distressing recollections of the event (in young children, repetitive play in which themes or aspects of the trauma are expressed)

(2) recurrent distressing dreams of the event

(3) sudden acting or feeling as if the traumatic event were recurring (includes a sense of reliving the experience, illusions, hallucinations, and dissociative [flashback] episodes, even those that occur upon awakening or when intoxicated

(4) intense psychological distress at exposure to events that symbolize or resemble an aspect of the traumatic event, including anniversaries of the trauma

C. Persistent avoidance of stimuli associated with the trauma or numbing of general responsiveness (not present before the trauma), as indicated by at least three of the following:

(1) efforts to avoid thoughts or feelings associated with the trauma
(2) efforts to avoid activities or situations that arouse recollections of the trauma
(3) inability to recall an important aspect of the trauma (psychogenic amnesia)
(4) markedly diminished interest in significant activities (in young children, loss of recently acquired developmental skills such as toilet training or language skills)
(5) feelings of detachment or estrangement from others
(6) restricted range of affect, e. g., unable to have loving feelings
(7) sense of a foreshortened future e. g., does not expect to have a career, marriage, or children, or a long life

D. Persistent symptoms of increased arousal (not present before the trauma), as indicated by at least two of the following:

(1) difficulty falling or staying asleep
(2) irritability or outbursts of anger
(3) difficulty concentrating
(4) hypervigilance
(5) exaggerated startle response
(6) physiologic reactivity upon exposure to events that symbolize or resemble an aspect of the traumatic event (e. g., a woman who was raped in an elevator breaks out in a sweat when entering any elevator)

E. Duration of the disturbance of symptoms (in B, C, and D) of at least one month.

Specify delayed onset if the onset of symptoms was at least six months after the trauma.

Theory Development of Post-Trauma Reactions

Theoretical basis of post traumatic stress disorder is rooted in the psychodynamic model. Behavioral theories such as the classical learning paradigm, the two-factor learning theory and learned helplessness, have enlarged the theoretical domain of post-traumatic stress disorder (McCann, & Pearlman, 1990). The most recent work in theory development is in the cognitive area. According to this model, how individuals perceive their world and events therein has a greater psychological impact than originally thought. In recent years, a number of researchers have discussed how victimizing life event can disrupt or alter an individual's basic assumption about self and world (Roth and Lebowitz, 1988; Roth & Newman, 1991; McCann & Pearlman, 1990; Wortman, 1991). Trauma occurs "when one loses the sense of having a safe place to retreat to within or outside oneself to deal with frightening emotions or experiences" (van der Kolk, 1987, p.31). In addition, there is a growing interest in psychobiological responses associated with post-traumatic stress.

Psychoanalytic tradition

In their classic work, *Theories of Hysteria* (Breur & Freud, 1985/1955) described, in effect, reactions to trauma that resulted in hysteria for women. Krystal (1978) outlined Freud and Breur's theory and provided a critique that placed theories of hysteria into terms understood and articulated in current language. Krystal proposed that the theory could be understood in two parts. The first part was the unbearable affect theory. In this first part emotions that overwhelm the psyche and produce unbearable psychological after effects as discussed. Krystal called Freud's second theory the unacceptable impulse theory. The unacceptable impulse is the result of trauma where conflict is generated between the ego and some idea presented to it. Following his work with World War I veterans Freud theorized that this unacceptable impulse resulted from stimuli overwhelming the ego barrier. He proposed that anxiety functioned as a danger signal. If the warning were not heeded automatic anxiety occurred when repression failed to protect the psyche from being overwhelmed.

Freud was interested in the dreams of the veterans due to trauma. He theorized that the dreams were an effort to master traumatic events by reexperiencing the trauma. In this way the patient would be able to come to terms with the unbearable affect. He thought that a second result of trauma was automatic anxiety which was a defensive process of avoidance, denial or inhibition. These ideas, articulated in *Moses and Monotheism* (1939/1964) reflect how carefully Freud must have attended to his clients in that they became well accepted and part of a much later information processing theory proposed by Horowitz (1976). The American Psychiatric Association introduced the approach avoidance duality as a hallmark of post-trauma reactions in the DSM-III in 1980. The current definition has changed the emphasis to an experience outside normal human expectations but still includes these dichotomous symptoms.

Krystal "has developed the most comprehensive psychoanalytic model of trauma" (McCann & Pearlman, 1990). Krystal believes that trauma is experienced differently in adults than children. He reminds readers that emotions are primarily somatized, undifferentiated, and nonverbal in children. As adults, trauma victims are better able to desomatize and differentiate emotion from bodily states. They are also better able to anticipate and block emotions before becoming overwhelmed by them. Krystal suggests that a surrender pattern exists in adults that consists of emotional blocking, behavioral paralysis, and an inability to enlarge or change cognitions. The pattern represents a failure to adapt to the trauma that becomes crippling over time.

Symbolization theory

Lifton continued the tradition of analytic theory with his pioneering work with survivors of Hiroshima, the Vietnam war, and natural disasters (1986, 1973, 1976). He proposed that people develop images and symbolic forms of their life experience. Lifton posited that the symbols contribute to a sense of continuity or discontinuity for each individual and are primary to our sense of well being. According to Lifton trauma disrupts these primary symbols. He outlines five major ways people may change as a result of having life symbols disrupted. Death anxiety follows from an experience of a death imprint or vivid memories of death and/or destruction. These people may feel more vulnerable to further traumatization and experience the world as unpredictable. Guilt associated with another's death or one's survival results in feelings that the survivor does not deserve to be alive. Lifton suggests that this feeling arises from a discrepancy between the memory of the actual event and the ideal behavior envisioned by the survivor. Another manifestation of symbolic disruption is psychic numbing or the loss of the ability to feel. This is an example of an adaptive response that with chronicity becomes maladaptive. A tragic consequence of disrupted symbols is a sense of disconnectedness from others. Humankind is based on sociability and this distancing from others has a profound effect on individuals. An inability to create new meanings and significance for the survivor prevents the survivor from moving on with life. Lifton views the ability to transform symbols as the ultimate task for survivors.

The psychobiology of the trauma response

Although the immediate and long terms effects of trauma may impact on the psychological, interpersonal, or cultural level; the physiological response must always be taken into account. Research results from the field of psychobiology have exploded onto the traumatic stress scene with a vitality that is characteristic of the high interest in the subject. It addresses three symptom areas commonly displayed by post-traumatic stress disorder patients a) reexperienced and intrusive imagery, b) avoidance, detachment, emotional constriction, and depression; and c) physiological hyperarousal and overdriven motor activity and nervous system functioning (Wilson & Walker, 1989). The symptoms are also common to anxiety, depressions, and dissociative disorders. A sampling of recent research will be introduced in the following section as examples of the interrelatedness of the mind and body.

Wilson (1989, p. 25) proposes that state dependent learning is established when the victim of a traumatic event "imprints the stressors in all sensory channels leading to a psychobiological state of hyperarousability." According to Wilson, a neural substrate and set of triggering mechanisms exist in the brain. To date, three classes of neurotransmitters have been identified that play a central role in four major mental disorders. Cholenergic agents such as acetlcholine, biogenic amines like dopamine, norepinephrine, serotonin, histamine and amino acids. In addition neuropeptides and endogenous opiods (beta-endorphin and enkephalin) are associated with altered states of consciousness.

One body of work focuses on the importance of catecholamine and norepinephrine. The hypothesis argues that avoidance, detachment, emotional constriction and depression are as a result of a decrease in norepinephrine. Conversely, increases in norepinephrine will improve these feelings. It is thought that a change in the balance between andrenergic and catecholimene levels will disrupt positive mood states.

van der Kolk (1987) proposed that the lasting effects of traumatization have been attributed to physiological or neuroanatomical alterations. Measurements of urinary norepinephrine metabolites in Vietnam veterans with post-traumatic stress disorder have shown a chronic elevation in noradrenergic activity. The symptoms of hyperactivity such as startle responses, explosive outbursts, nightmares, and intrusive recollections in humans resemble those produced by chronic hypersensitivity following transient catecholamine depletion after acute trauma in animals (Anismab & Sklar, 1979, in van der Kolk, 1987). There is a striking parallel between the animal response to inescapable shock and the human response to overwhelming trauma. On the basis of animal data van der Kolk (1987) hypothesized that the repetitive intrusive reliving of the trauma is caused by stress induced reactivation of the locus corelus- hipocampus/amygdala pathways. In other words "stress or sometimes sleep flashbacks are due to an activation of a neural memory route which explains the eidetic (reliving) rather than oneiric (dreamlike) quality of many post traumatic nightmares (p.67)."

When exposure to the traumatic event is prolonged (as in protracted court cases), catecholamine use eventually exceeds synthesis (van der Kolk & Greenberg, 1987). In addition norepinephrine and dopamine are depleted and increased levels of acetalcholine have been noted. This pattern of chronic catacholamine depletion produces enduring changes in noradenergic receptor sensitivity such that the receptors become hypersensitive to subsequent stimulation in response to stress or arousal (Anisman, Ritch & Sklar, 1981 in Wilson, 1988). Hypersensitivity to stress means that a lesser threat, or perhaps the perception of a threatening stimulus, is needed to activate or overwhelm the system, a conclusion noted by Freud (1929). Similarly, the arousal far exceeds an adaptive response. Decreased tolerance for arousal results in hypervigilance, hyperalertness, irritability, explosive anger, and exaggerated startle response.

Physiologic responses associated with the psychological defense of dissociation often found in people with post-traumatic stress disorder have also been investigated using urine studies. It was thought that decreased cortisol levels and exaggerated norepinephrine levels suggested a dissociation between the sympathetic-adrenal medullary system and the pituitary-adrenal corticol system. While elevations in norepinephrine and epinephrine levels are widely seen in response to acute stressful experiences they are characteristically associated with concurrent elevation of cortisol and lowered testosterone levels rather than lowered cortisol and elevated testosterol (Mason et al., 1990). Further confirmation came from Hoffman, Burgess-Watson, Wilson & Montgomery (1989), who discovered that the norepinephrine/cortisol ratio significantly distinguished post-traumatic stress disorder from other disorders. The researchers concluded that dissociation is an individuating aspect of post-traumatic stress disorder.

Increased sympathetic activity and reactivity is now being explored at the cellular and molecular level. Perry, Giller and Southwick (1990) produced findings that appear to distinguish post-traumatic stress disorder from major depressive disorders. They detected fewer total platelet @2 receptor binding sites and an altered ratio of the @2 affinity states that may reflect decreased efficiency of coupling to adenylate cyclase. They speculate that the decrease may result from chronically high levels of circulating catecholamines with concomitant receptor desensitization in post-traumatic stress disorder.

A review of sleep studies suggests that post-traumatic stress disorder nightmares occur earlier in the sleep cycle, are associated with considerable body movements, have elaborate replication content, and are not confined to REM with a suggestion of dissociation as a defense (van der Kolk, Greenberg, Boyd & Krystal, 1985). Goldstein et al. (1987) noted that after 40 years 96.2% of 32 former W.W.II prisoners of war (Pacific area) reported sleep disturbances and 93.8% reported recurrent dreams of traumatic events. Latterly, evidence of hyper arousability in sleep, sometimes with amnesia, is a “major finding in many studies” (van Ellen & van Kammen, 1990, p.1798). Mason, Giller, Kosten & Yehuda

(1990) hypothesized that post traumatic stress disorder sleep can produce a straining of defenses that are possibly inadequate and/or self damaging defenses.

Animal studies that relate stress to a heightened opiate level which attenuates the perceived intensity of shocks have led to speculation that the need to re-experience situations similar to the trauma has a physiological component (van der Kolk, 1987). Burges-Watson et al. (1988) postulate an imbalance between norepinephrine and opiod release in the area of the locus coreleus is such that the symptoms of opiate withdrawal are coupled to norepinephrine hypersensitivity and produce the often seen hyperactivity, explosive outbursts, insomnia, intrusive symptoms, and the drive to repeat trauma.

It is speculated that the locus coreleus may constitute a brain trauma center where arousal, responsiveness (including discrimination, fear, and startle), and memory are integrated (Krystal, 1990). Kolb (1987) has suggested a neurophysiological hypothesis that postulates that change or damage at the cortical level depresses the capability for habituation and impairs cortical control of lower brain structures concerned with aggression and the dream cycle. These changes are a result of intense and recurrent stimulation and may be actual neuronal death (p. 993). It is significant that a relationship between physiological variables and psychological trauma has been found which can be hypothesized to confirm that post-traumatic stress disorder is a valid diagnosis. At this point it is only possible for experts to hypothesize the relationship. Out of all this research and theory, one may conclude that there is a large physiological, neurological, and body chemistry disruption that accompanies post-traumatic stress.

As previously mentioned, it has been speculated that these neurochemical processes occur in conjunction with state dependent learning and conditioning. Internal or external stimuli (meaningful to the victim) triggers the neurological system and produce symptoms of post traumatic stress disorder. State dependent learning is also discussed in Mower's two factor learning theory.

Mower's Two Factor theory

"Mower's (1960) Two Factor learning theory offers particular promise in explaining the acquisition and maintenance of intrusive cognitions, aversive emotional responses, physiologic hyperarousal, and phobic avoidance" (Amick-McMullen, Kilpatrick, Veronen & Smith, 1989). According to the model symptoms of post-traumatic stress disorder for families of homicide victims are developed in the classical conditioning paradigm. A previously neutral stimulus becomes associated with the event. A learned (conditioned) response occurs when the stimulus provokes responses similar to the unlearned responses associated with the traumatic event. For example, the smell on lilacs always elicits the same feelings of faintness a mother felt when told of her son's death on the doorstep of her home. In Mower's theory, classical learning is Factor One. In an effort to avoid their smell, and the aversive memory, the mother had the lilac bushes from her home removed, and eventually moved to a new neighbourhood that had few lilacs planted.

Factor Two is the hypothesis that such avoidance behavior maintains the strength of the response rather than extinguishing it. For extinction a response must be desensitized by repeated pairing of the aversive stimulus with a nontraumatic event so that the association would eventually fade. As in the case of the mother who avoided the smell of lilacs by moving, many survivors isolate them selves. "It is not unusual for survivors to avoid helping professionals and family members in an effort to avoid being reminded of the loss" (Amick-McMullen, Kilpatrick, Veronen, & Smith, 1989).

Cognitive Theories

Information processing

Horowitz, an outstanding theorist in the area of stress, explains post-traumatic stress as an information processing process within the cognitive framework. Trauma impacts on cognitive schemas which must then be controlled in order to adapt to the information. Horowitz contends that:

> a) active memory storage has an intrinsic tendency toward repeated representation of its contents,
>
> b) this tendency will continue indefinitely until the storage of the particular contents in active memory is terminated, and,
>
> c) termination of contents in active memory occurs when active processing has been completed. In effect then, active memory contents would follow an automatic completion tendency. (Horowitz, 1975, pp. 1461-1462).

This theory suggests that trauma will not be integrated into existing cognitive schemas until the psychological representations are stored into active memory where they will be repeated unless addressed (McMann & Pearlman, 1990). Intense emotions elicited by the repeated trauma are so distressing that they are denied in order to produce an emotional numbing as a defense against the tendency to repeat. In a manner reminiscent of grief theory, Horowitz hypothesized that there are typical phases of trauma. The second phase is evinced by a pattern of oscillation. This pattern is composed of intrusive memories, ideas, or emotions (possibly obsessive compulsive in nature) followed by denial, numbing, and efforts to ward off intrusive memory. Lastly, a phase of working through allows transition and integration of the event by lessening episodes of intrusion and emotion as it becomes conceptualized and accepted. Horowitz provided a basis from which to understand information processing as it relates to trauma. Additional information appears from cognitive behavioral theorists.

Cognitive processing

The cognitive processing of stressful life events is affected by personality variables, the nature of the stressors experienced, coping resources, and the nature of the recovery environment (Green, Wilson & Lindy, 1985). One effort at coping is cognitive reappraisal. According to Lazarus and Folkman (1984) cognitive reappraisal includes "cognitive maneuvers that change the meaning of a situation without changing it objectively..." (p. 151). They define positive copers as those who augment information processing by a) wide scope attention to the properties and elements of the stimulus field, b) active and persistent search for new data relevant to problem solving, and c) the formulation of alternative schemas for enactment.

Janoff-Bulman (1985) proposes that a critical factor affecting the way that individuals adapt to trauma is the kinds of assumptions that coexist with personality variables and coping resources. Her theory is not specific to one victim group but across all traumatized groups. She further hypothesizes that coping resources will depend upon the kinds of ideas that people hold about the way the world operates.

World assumptions

Janoff-Bulman (1985) proposed that post traumatic stress reactions following all types of victimization contain recurrent themes due to the shattering of basic assumptions that victims hold about themselves and their world. The most severe reaction for victims of trauma is generally an intense feeling of vulnerability. A belief in personal invulnerability is based on the idea that violence is something that only happens to other people. This belief in personal invulnerability seems to be fundamental to the healthy personality. A sense of safety and security is first developed in early childhood through responsible, predictable interactions with caregivers (Bowlby, 1969; Erikson, 1950, 1968 ; Horney, 1937, 1939; Sullivan, 1940, 1953). Assumptions about our place in the world and the type of world we inhabit arise from these early interactions. When belief in personal invulnerability is shattered grave concerns about personal safety and the safety of loved ones is exhibited by hypervigilence and anxiety and are accompanied by feelings of helplessness.

Basic assumptions are described as

a) benevolence of the world,
b) meaningfulness of the world, and
c) worthiness of the self.

Benevolence of the world refers to the extent that people view their world positively or negatively. The more the individual believes in benevolence of the impersonal world, the more that person sees the world as a good place and misfortune as relatively uncommon. If one experiences the benevolence of people then there is a higher chance they believe that people are basically good, kind, and caring.

The second category involves people's beliefs in how outcomes are distributed. A meaningful and comprehensible world view is complicated by heuristic thinking used by most people to explain the world. People may believe that outcomes are distributed by the principles of justice. As an example the just-world theory (Lerner, (1970), in Janoff-Bulman 1985) holds that people believe that other people get what they deserve. For people who believe that character determines life events, becoming a victim places a great deal of stress on estimates of self and others. An ancillary belief is that people's behaviors will influence whether or not unfortunate events will occur. If people engage in precautions that are appropriate the assumption is that nothing bad should happen to them. There is considerable evidence in the literature that people overestimate the amount of control they have over outcomes (Langer, 1975; Taylor, 1983; Wortman, 1976). Meaningfulness is consistent with predictable social laws. In Western society the social laws are justice and ability to control. Those people who believe in random chance will probably have a high belief in personal vulnerability.

Worthiness of self relies upon the feelings that unhappy events will always happen to that individual. This Joe Btlznfk (a character in Lil' Abner who always walks around with a cloud over his head so that it rains on him all the time) attitude depends upon a low self esteem. Viewing oneself in a positive light becomes difficult as secondary victims often begin to view themselves as deviant; Jonahs left to themselves because of the nature of the death. For families of homicide victims a search for causal explanations imposes additional stressors upon the grieving family and often goes beyond reasonable or rational explanations (Bard & Sangrey, 1986). A major task for the victim is to understand the world in terms of personal experience which often implies that assumptions about the world must be changed or modulated.

The relevance of world assumption theory to this study is twofold. It connects feelings of trauma victims to a view of grief held by Parkes (1975) who used the term assumptive world to refer to a 'strongly held set of assumptions about the world and self which is confidently maintained and used as a means of recognizing, planning and acting. . . Assumptions such as these are learned and confirmed by the experience of many years" (1975, p.132). Second, investigation into this area is limited. One of the purposes of this study is to investigate the world assumptions held by secondary victims of homicide in comparison to those held by nontraumatized Alberta adults.

Individuating circumstances of survivor-victims

Family survivors of homicide victims often exhibit signs of complicated bereavement and post-traumatic stress. They remark that people just don't understand what they have gone through. Homicide is the ultimate violation that one individual can impose upon another (Sprang, McNeil & Wright Jr., 1989). The survivor victims are confronted with their own mortality, proof positive that they at any moment and quite without warning may be deprived of their lives (Bard & Sangrey, 1979). This phenomenon combined with society's inability to acknowledge or understand the length of crises resolution and lack of knowledge regarding how to respond leaves the survivors isolated. Many friends avoid people as if their peril was contagious (Sprang, McNeil & Wright Jr., 1989).

The depth of emotional reactions for loved ones of a murder victim is overwhelming and can not be overstated. Frequently friends become uncomfortable and finally exasperated. As time passes, friends and relatives withdraw (Getzel, & Masters, 1984). It is impossible for others to understand that an obsessive review of the circumstances surrounding the murder is necessary for the survivors. Parkes (1972) noted this tendency and called it search behavior that is engaged in before the living are able to put away the notion that loved ones will reappear. When the hope that the loved one will re-appear is abandoned and the death accepted then grieving begins. Grief is complicated by an overwhelming sense of rage and guilt. Rage is often directed at institutions represented by the court system and the perpetrator (Rinear, 1984; Getzel & Masters, 1989; Bard & Sangrey, 1979). The intensity of emotions previously noted is layered with an overpowering desire to be with the loved one (Rinear, 1984) eliciting suicide ideation for many clients.

Writers, with experience in the field, have noted a disproportionate number of pathological grief reactions such as anxiety attacks, existential crises resulting in suicide ideation, and overwhelming rage triggered by trivialities (Masters, Friedman, & Getzel, 1987). Behavioral changes include phobic avoidance of homicide related stimuli and increased self protective behavior (Burgess, 1975; Rynearson, 1984). Getzel and Masters (1984) report that family roles often change which in turn precipitates further crises. Poussaint (1984) has observed a tendency to try to hunt for the killer. The disproportionate grief reactions cited have been discussed but not studied empirically with family survivors of homicide victims. There is an evolving body of work that has verified specific reactions in all trauma victims. One intent of the present study is to ascertain that stress reactions manifested by somatic symptoms exist in family members of homicide victims

The need for psychological services

"We cannot overstate the profound need for appropriate clinical intervention among survivors of homicide victims. Our clinical experience attests to the tremendous challenge presented by survivors who seek treatment" (Amick-McMullen, Kilpatrick, Vernon & Smith, 1989, p. 21). Specialized victim services to this population require systematic investigation and skilled clinical intervention-this is an area of profound need (Getzel & Masters, 1984). Grief has long been recognized as an area where clinical intervention is often necessary. Given that profound compounding factors result in post traumatic stress disorder in addition to grief, it is evident that survivor victims need experienced clinical intervention and support. It is possible that many clinicians are unfamiliar with work in trauma and perhaps unprepared.

Social support and traumatic stress

Davidson, Hughes, Blazer and George (1991) found that scores for people diagnosed with post-traumatic stress disorder were associated with significantly lower (impaired) subjective social support scores, and lower interaction scores, but showed no difference in the size of their social support network compared with a non post-traumatic stress disorder group. It would appear that the isolation factor is substantiated by Davidson et al. In a study conducted by in depth interviews, it was noted that "if social support is inadequate following the trauma the risk of pathological adjustment is accentuated" (Lyons, 1991). From their clinical experience Getzel and Masters (1984) observe that emotional support should begin with the way the news is delivered to the family. They urge sensitivity and understanding by police, the medical system, the court system, the media, and helping professionals who may come in contact with secondary victims.

A body of research is evolving in the field of post traumatic stress but interventions for families of murder victims are based upon Rinear's (1984) empirical study, the work of Amick-McMullen, Kilpatrick, Veronen & Smith (1989), and writers with clinical experience. This study builds on Rinear's work in that it will contrast peer support group members with non-members, and, secondly, will examine families rather than parents exclusively. The intention is to add to empirical data about what is known about grief reactions of all members of the family within and without peer support groups. In this way effective therapeutic interventions and education programs can be planned for all who work with survivor/victim families.

It is the aim of this study to provide information about the helpfulness of social support groups for family survivors of homicidal deaths in western Canada. There is speculation that the grieving process for surviving family members may be prolonged or unusually complicated, especially for those who do not perceive a significant social support base.

It is consonant with the above to surmise that those who do attend special peer support groups or seek professional intervention (i.e. counseling) should exhibit better emotional adjustment than those who do not seek peer support or counseling. Indeed the research should provide some answers to this question.

Out of the forgoing literature, certain directions for research have been drawn. Specially, the following research questions or tentative hypothesis emerge:

Hypothesis I.	Family members of homicide victims who attend peer support groups will display better emotional adjustments than family members who have not attended peer support groups.
Hypothesis II.	Family members of homicide victims who attend peer support groups will take less time resolving their grief than non-members.
Hypothesis III.	All persons in a homicide loss situation will be characterized by shattered assumptions but that the more recent the murder, the greater the score, indicating a higher degree of confusion and mistrust of the world.
Hypothesis IV.	A number of interventions and associated factors will emerge as facilitative of adjustment. Family members of homicide

victims who perceive significant emotional support from other people will be more adjusted than those relatives who feel they have been isolated by the extended family and the community.

Hypothesis V. Various demographic factors will be related to adequacy of resolution.

CHAPTER III

Method and Procedures

The questions to be answered in the present investigation center on grief and on stress reactions of family members of a homicide victim. It was decided that although a control group sample would be preferable, the time involved to obtain permission from a hospital board as well as permission from four Chief Coroners/Medical Examiners to examine their files would be outside the scope of this particular research. Accordingly, the initial study of Western Canadian family members of homicide victims was designed as being descriptive in nature. The composition of this sample is described in the next step of this chapter.

Background and contextual information

As this study was the first of a kind in Canada, obtaining a sample objectively proved to be the most time consuming aspect of the research. At the time of this study, next of kin were not identified by computer in any province. This meant that each homicide file needed to be hand searched for the names and addresses of the victim's family. Coroners and Medical Examiners were reluctant to agree to the research which could set a precedent for the country. Federal guidelines regarding access to Provincial Coroner's and Medical Examiners' files had not been established when the Chief Coroner of British Columbia and the Chief Medical Examiner from Alberta were contacted. Subsequently, federal guidelines were established based, in part, on experience gained from this study. Approximately ten months had passed before permission to file access was granted (in

November of 1991) by the Chief Coroner of British Columbia subject to approval of the study by another province.

Conditions imposed upon the research

Conditions to be met varied with each province. With the exception of Saskatchewan all provinces demanded that the researcher be the only person allowed to examine the homicide files. Coroner homicide files in Saskatchewan do not contain the addresses of next of kin. The Chief Coroner of Saskatchewan offered to have the files searched and next of kin addresses requested from local and R.C.M. Police. Initial letters were mailed from the Office of the Chief Coroner of Saskatchewan. All provinces requested a clear explanation of the research with an emphasis on the proposed ethical responsibilities of the researcher including the proposed method and procedures for the study. In British Columbia the researcher was not allowed to remove names and addresses from the premises so the office of the Chief Coroner of British Columbia assumed responsibility for the initial mail out. In Alberta and Manitoba the researcher assumed responsibility for all confidential information as well as the initial mail out. Saskatchewan assumed responsibility for addresses and for contacting next of kin. The Chief Coroner and/or Medical Examiner from all four Western provinces requested that the researcher not remove details about any of the homicides to which she had access. It was reasoned that, although the researcher was in possession of addresses in two provinces, confidentiality was maintained because details of the homicide could not be linked to any particular family. In addition a promise was made not to try to follow-up members of families who had not responded to the survey or who may have requested questionnaires, but not returned their data. As these are both often used procedures to corroborate data in survey research, these restrictions imposed by officials must be mentioned.

Data collection

A letter following the guidelines delineated by Provincial Coroners and Medical Examiners and explaining the research proposal was sent to next of kin. Letters were sent to addresses of all relatives found on each file. The sample comprised those people who were listed as next-of-kin of a person, child or infant whose death has been recorded as homicide, in addition to whomever was asked to complete the survey by the next of kin.

At times conditions imposed on the research were of a physical nature and resolution of the problem purely pragmatic. Initially it was proposed that the study cover a ten year retrospective period. Upon investigation it was discovered that files beyond a five year period were often stored in different warehouses than those for the first five years. Because the researcher was the only person allowed access to the files and in Alberta and British Columbia access included pulling all files (two years in British Columbia) a period of five years was considered to be the most feasible time frame to survey. Accordingly, letters were sent to those families whose loss from homicide had occurred up to and including, a period of five years. In Alberta it was possible to examine files over a period of six years.

Each Chief Coroner or Medical Examiner wrote a letter indicating support for the research (Appendix D-F). This procedure was initiated in Alberta. Following receipt of this letter, the office of the Chief Coroner in British Columbia developed a similar letter, as did the Chief Medical Examiner of Manitoba and Chief Coroner of Saskatchewan. It also assured next of kin that the researcher had no personal knowledge of them; thus implying that the family would not be contacted again by the researcher unless the family chose to reply. A letter from the researcher (Appendix A) asked that other members of the immediate family also respond so that reactions from family other than parents could be evaluated. A full page reply form on heavy gray paper indicating informed consent was included with each package (Appendix B). The researcher's name and address were on the overleaf of the paper. Respondents folded the page in three, fastened the form with tape or staples, and placed a stamp on the appropriate place for public mail. In this way, the name and address of the respondent was not seen by the public as on a post card and yet the form was convenient and color coded so that it would not be mistakenly discarded. Respondents indicated their willingness to participate in the study as well as the number of questionnaires they required. These forms traveled through the mail very well. In future research, the phrase "adult family members" should appear on the form as a precaution, although the youngest respondent to this survey was 17 years old.

The research package containing the requested number of surveys was sent to each respondent. A separate thank you letter (Appendix C) including the researcher's silent telephone number, directions for psychological help in each of the four provinces, and instructions about how to obtain results of the study was placed on top of each survey in the package. In addition a separate self-addressed return envelope was attached to each questionnaire and letter so that privacy from other members of the family could be maintained. Completed questionnaires were then returned to the researcher individually or in family groupings according to the wishes of the participants.

Ethics

The ethics of using survey research with family members of a homicide victim were fully investigated by the Chief Coroner and Chief Medical Examiner of each province before permission was granted for the researcher to search the files. The Chief Coroner or Medical Examiner of each of the four Western Canadian provinces expressed reluctance to participate in the study, unless potentially difficult ethical issues were demonstrated to have been anticipated and resolved. Each official felt that the research may precipitate negative reactions from the population surveyed, and that would lead to unwanted publicity and censure from the provincial Attorney or Solicitor General responsible for the department. They were equally concerned that the researcher be sensitive to issues surrounding homicide and to the needs of grieving family members.

As noted, none of the provinces has a computerized system that includes names and/or addresses of next of kin. These could only be obtained by hand searching and, in many cases, reading through each homicide file. Saskatchewan does not routinely record next of kin, but staff from the Chief Coroner's office was authorized to contact local police in an effort to provide data. Alberta, Manitoba, and British Columbia use different methods of recording next of kin. In Alberta, a routine letter from the Chief Medical examiner is sent to the family of people whose deaths have been investigated by that office. In preparation for computerization the names and most current address of next of kin is recorded on recent files. Elsewhere it is usually the responsibility of the investigating officer. In the urgency of a homicide investigation addresses of next of kin are not always recorded by the investigating police officer. Investigators from the Coroners' office and Medical Examiners' office are at times consulted, and they are trained to record the information routinely. This, however seldom happens. Each file was searched for police or investigative notes that would provide the required data. In order to fulfill confidentiality restrictions the researcher was the only person permitted to examine the files.

Invasion of privacy became a paramount issue. Each province was concerned about the legal definition of invasion of privacy as well as the moral responsibilities assumed by their office. They wanted to know how people would react to a letter that may arrive up to five or six years after a traumatic death. Legally the files belong to the Chief Coroner or Medical Examiner. Information from the files and correspondence regarding an investigated death is at the discretion of the Chief Coroner and Chief Medical Examiner in each province. Alberta had one precedent in a study which involved examining the medical characteristics of asthmatic deaths. A letter was written by each Chief Medical Examiner or Chief Coroner giving official support to the research in the jurisdiction. The letter indicated that the researcher had no personal knowledge of the people contacted and stressed that participation was purely voluntary. Condolences were expressed by the writer. Unfortunately, these condolences were referred to by a few respondents in the present study who noted that the spelling of their names was incorrect which they felt exemplified a continuation of indifference by institutions to their plight.

The more serious concern about precipitating post-traumatic stress episodes in individuals remains in part unanswerable. What is the responsibility of the researcher? Although we know that people will be reminded of their trauma by every day events should they be subjected to an unexpected source of reminder? A number of participants commented on the qualitative response sheet, that they were pleased to be able to provide information in the hope that others would experience a more enlightened approach by the legal system and police. The question obviously remains, however, unanswered by those people who chose not to participate. As part of the agreement with the Chief Coroner and Chief Medical Examiner from each province a promise was made not to attempt further contact with families who had not volunteered to participate in the study. A two-part mail out where one receives only one letter and chooses not to reply, may still create a number of difficulties for the family member. Respondents indicated that friends and relatives grapple with the problem of reminders for the family but that they (the respondents) would rather be reminded in an open and straightforward way. Some people commented that it was important to them that their slain loved one not be forgotten. It is hoped that initial contact by the researcher would, for most people, be dealt with psychologically in a similar manner.

The well-being of individuals who responded to the survey was a concern. It was possible that memories of emotions during and after the death would precipitate emotional distress. Letters accompanied each questionnaire in the second mail out that provided individual provincial resources for psychological services and instructions about how to reach the researcher (Appendix C). A separate telephone line connected to an answering machine was installed to ensure that any person in distress or wanting information would be able to make immediate contact with the researcher. In this way, the survey could be seen as potentially helpful for people who had not sought support or counseling in their own communities. Surprisingly, notes or letters asking for help were often enclosed in the initial reply although the contents of the second mail-out had been planned to include this information. Where appropriate, these requests were answered immediately with a handwritten letter.

During the course of the research a number of related ethical issues were addressed. In many instances the perpetrator of the crime was also the recorded next of kin. Each file was examined for a police charge and if possible the result of the trial so that the perpetrator was not canvassed. There were many cases when the decision about next of kin was not easy. Is it ethical to survey next of kin of a murder suicide in the same family? Guided by experience with this question, adult surviving children or spouses were afforded the opportunity to respond. When the victim was a child and the suspected perpetrator a parent, the parents of the non-offender (grandparents of the homicide victim) were contacted where possible. In cases of child abuse, a decision was made about including the remaining parent on the basis of the police report. Similarly, a decision was made about questioning the spouse of a person who had been killed by a lover on the basis of the police report. Generally if the victim and the spouse had separated they were included on the next of kin list. Given the degree of unease by representatives of all four provinces about creating adverse publicity, it was decided to canvass family members of a police officer killed in the line of duty but not the family members of a person killed by police. It was thought that residual anger in these families may be very high. The data would be valuable, but the risk of losing the whole database was judged to be more important by the researcher.

In one case, the husband of a woman who had reputedly killed two of her children demanded an audience with the researcher. He did not accept the verdict of the Medical Examiner and insisted that the deaths were a result of an accident. He was also suing the Medical Examiner for defamation of his wife's character. Listening to his story it seemed improbable that this man's wife had deliberately taken the lives of two of her three children. The interview resulted in a three hour therapy session during which the client answered all the survey questions voluntarily. This data is not included in the research because of the survivor's belief in the innocence of his wife and because the Medical Examiner's office removed the homicide designation from the file.

Every effort was made to treat the family members with delicacy, respect and dignity. The initial recruitment letter stressed the researcher's experience and understanding of the respondent's situation. For example, the researcher was a leader of the first formalized therapy group for family members of victims of homicide in Edmonton. She had attended international traumatic stress conferences in order to expand her understanding.

Since one of the instruments used is designed to uncover psychopathology (SCL-90-R), the problem of what to do about an anonymous answer sheet that indicates either psychopathology or high levels of distress presented itself. It was considered that a list, mentioned previously, of available public health services would be helpful to those people wishing to consult a mental health professional. In this way the integrity and autonomy of the respondent was maintained.

Formal contact by letter and informal contact by telephone was made to each provincial mental health agency and to volunteer agencies responsible for victims of crime, to notify them about the research and the possible impact of the questionnaire on the family. In this way it was thought that agencies would not be overwhelmed by a demand for services.

Sample

The total number of initial letters of inquiry was nine hundred and thirty eight. A province by province breakdown of the numbers is as follows:

	Letters sent	Undeliverable mail	Total questionnaires sent
British Columbia	340	60	400
Alberta	372	100	**Total questionnaires returned**
Saskatchewan	55	unknown	127 + 2 late (32%)
Manitoba	171	39	
Total	938	199+	

Instruments

The following instruments were used:

Symptom Checklist 90-Revised (SCL-90-R), (Derogatis, 1985)

Texas Revised Grief Inventory (TRIG), (Fashingbauer, 1985)

Purdue Post-Traumatic Disorder Scale (Hartsough, 1985)

World Assumption Scale (Janoff-Bulman, 1989)

Qualitative Analysis of Written Responses.

These instruments are described in some detail in the following section of the study. They produced 25 separate scores for comparison on data analysis. Nine short questions plus one full length page were answered qualitatively. Results of the qualitative analysis are discussed in Chapter V.

Symptom Check List-90-Revised (SCL-90-R) (Derogatis, 1983). This instrument is a self-report inventory designed to assess the psychological symptoms of psychiatric and medical patients. Subjects were asked to rate their experience in the previous seven days, on each of 90 symptoms on a 0-4 scale. The inventory measures somatization, obsessive-compulsive symptoms, interpersonal sensitivity, depression, anxiety, phobic anxiety, psychoticism, paranoid ideation, and hostility. It also has three global indices of distress that have not been validated, a General Severity Index and a Positive Symptom Total that reflects the number of symptoms identified. Derogatis notes that the instrument was revised to answer criticisms from clinicians' viewpoint in 1983.

Tennen, Affleck and Herzberger (1985), commenting in *Test Critiques, Volume VIII*, say that validity checks for the revised version show that subscales have high levels of internal consistency and high convergent validity. Reliability is considered to be high, stable over time, and yet sensitive to treatment effects. Respondents note the degree to which they are distressed by the symptoms on a scale from 0 (not at all) to 4 (extremely). The test administrator sets a period of time for which the symptoms are assessed, typically the last week. They (Tennen, Affleck and Herzberger, 1985) state that the instructions are simple to understand.

The SCL-90-R symptom subscale scores are significantly associated with the Beck Depression Scale, the symptom dimensions measured by the MMPI, the Denver Community Health Questionnaire, and the Personal Adjustment and Role Skills Inventory (Derogatis, 1983). The SCL-90-R has been used to measure responses to stressful life events or chronic strains in nonpatient samples. Elevated symptom scores have been shown for women seeking abortions, spouses of chronic pain patients, parents of children who have died in traffic accidents, people grieving the death of a parent, survivors of catastrophic fire, relatives of suicide and rape victims. Crime related post traumatic stress reactions among women have been assessed using the CR-PTSD scale of the SCL-90-R (Saunders, Arata, & Kilpatrick, 1990).

> The SCL-90 is useful in assessing psychiatric symptomatology, but it is clearly not a diagnostic measure. SCL-90 criteria are more sensitive, less stringent and less specific than established research and clinical criteria customarily used for diagnostic purposes. Hence, individuals who score high on the SCL-90 do not necessarily meet the clinical criteria for a disorder (Solomon et al., 1991).

Elevated scores, including those in the clinical range, therefore, may be only an indication of, for example, heightened anxiety or depression. Anxiety and depression are both significantly correlated with post traumatic stress disorder. A heightened somatization scale may also indicate post-traumatic stress disorder as many of their objective symptoms such as shortness of breath and a feeling of faintness are also indicators of post traumatic stress disorder. Robins (1990) comments that "more than any other, PTSD symptoms overlap with those of other disorders." Wilson (1989) notes that elevations on the SCL-90-R were found for four separate groups of victims when the groups were compared independently. The elevations noted were on Obsessive Compulsive, Interpersonal Sensitivity, Depression, Anxiety and Hostility. Moderate elevations were found on Phobic Anxiety, Paranoid Ideation, and Psychoticism.

Texas Revised Inventory of Grief (TRIG) (Fashingbauer, 1981). This inventory is used to measure absence of grief, delayed grief, prolonged grief, and acute unresolved grief. It is comprised of 21 items and is the most current, and respected of the few instruments available. A search of psychology literature confirms its international use. A 5 point Lickert scale is used to score: completely false, mostly false, true and false, mostly true, completely true. High scores indicate a higher level of grief. Split half reliability for Part One is .74 and coefficient alpha is .77. Split half reliability for Part Two is .88 and coefficient alpha .86. Construct validity is suggested on three factors. Part One includes dependency and grief, and funeral attendance and grief, while Part Two measures time and gender and degree of relatedness.

World Assumptions Scale. (WAS), (Janoff-Bulman, 1989). The World Assumption scale is based on the assumption that people who have experienced trauma must not only assimilate the experience, but change their basic schemas about themselves and their world. Janoff- Bulman (1989) tested this thesis on a sample of normal college students who had not experienced trauma and one that had experienced trauma. The scale has 32 questions which identify three basic assumptions about the world: 1) benevolence of the world, 2) meaningfulness of the world, and 3) self worth. The eight subscales are benevolence of the world, benevolence of people, justice, control, randomness, self-worth, self control, and luck. She reports reliability coefficients ranging from .66-.6 and a high validity confirmed by factor analysis. Reliabilities are higher on the three overall scales. Janoff-Bulman notes that the eight subscales are very informative in describing the beliefs of particular samples. This scale has been used to discriminate for depression which often accompanies long term grief but is not always an individuating factor. The world assumptions scale uses a six point Lickert scale: strongly disagree, moderately disagree, slightly disagree, slightly agree, moderately agree, strongly agree. An earlier version (1985) used an eight point scale. Janoff -Bulman reports that the scales do not essentially differ (1989). At this point norms are not available.

Alberta sample of non-traumatized individuals responses on the World Assumption Scale

As the World Assumption Scale is an experimental instrument, a sample of people from Alberta was obtained to use as a comparison group for the families of homicide victim sample. The sample was obtained by asking people who worked at the Workers Compensation Board and/or the spouse other family member in a different occupation to complete the scale. In this way a cross-section of people from different occupations was obtained. The procedure used was similar to the one implemented by Janoff-Bulman with college students (1985). At the top of the survey it asked that people not complete the scale if they had "experienced trauma such as incest, rape, fire that destroyed your home, an accident resulting in a serious disability, or if they had experienced the upsetting death in their family of a parent, sibling or child." The respondents were coded according to the Blishen Occupational class scale (Blishen & McRoberts, 1982) which can be used as an index for socio-economic status. With two exceptions, all respondents were coded differently and across several occupations. The Alberta sample scores were not compared to the norms of college students obtained by Janoff-Bulman because the earlier survey used an eight point Lickert scale rather than the six point scale currently in use. A published article was provided to facilitate informal comparison.

Purdue Post-Traumatic Disorder Scale, (Purdue PTSD), (Hartsough, 1988). The Purdue PTSD Scale is an experimental scale consisting of 15 questions. The questions are based on the diagnostic categories for post traumatic stress disorder in the DSM III-R (APA, 1987). The Purdue PTSD scale has been used as a research tool in the Grand Canyon study in which reactions of disaster workers who had recovered bodies from an airline crash in the Grand Canyon where examined. The author reports a test-retest reliability of 0.76. and a 0.81 correlation with the BSI a brief version of the SCL-90-R. There is a positive set to the scale that may or may not affect responses.

Demographic Data. Demographic data from the Texas Revised Grief Inventory were used. The questionnaire indicated that the inclusion of a name was optional. Separate cards were provided for people to give their name and address if they wished a synopsis of the study. Age of the respondent, Sex, Race (White, Black, Latin Am. Oriental, Other), address, and the last year of formal schooling completed. Additional information included the actual relationship of the deceased to the respondent and an evaluation of the closeness of the relationship.

The victim's age was asked and a number of choices about the length of time since the death.

Quantitative analysis

To test the series of hypotheses appearing at the conclusion of chapter ii, a number of statistical procedures were employed. They include in order of their use: one-way analysis of variance, Hotelling t 2, Pearson product moment correlations, one way analysis of variance with Scheffe post hoc pairwise comparisons. Some two tailed and some one tailed tests were done and noted as appropriate to the data. The criterion significance was set at 0.05. Computation and statistical consultation was provided by the Centre for Research in Applied Measurement.

Qualitative data analysis

Nine qualitative questions were included in the study. Five are true and false questions. They are: 1) I have received emotional support from friends; 2) I have been a member of a peer support group; 3) I have had counseling following the homicide; 4) I have received emotional support from family members; and 5) I have received emotional support from helping professionals (e.g. police, lawyers, social workers, doctors) Please specify. Two questions asked 1) Did friends and co-workers treat you differently after the murder? A line was provided for explanation; 2) How has your marriage/relationship with significant other been affected by the murder. Responses to these two questions were coded as yes, no, more supportive, avoided for question 1, and yes, no, more supportive, separated, spouse killed, and worry about another relationship. The codes arose from the data and were not pre-conceived.

Qualitative theme analysis

The last page was provided for respondents to answer the inquiry regarding "what you found to be helpful and what you found to be not helpful during the loss of your loved one." The results were analyzed for individual response units and overall themes that emerged in order to more fully understand results of the study. The theoretical foundations of qualitative analysis differ significantly from that of empirical analysis. Usually qualitative analysis is used when little is known about the subject, to generate hypotheses to be tested. Quantitative analysis relies on hypotheses to discover if they are true. A short discussion about the concepts for reliability and validity follows to enable a more complete understanding of the qualitative analysis.

Qualitative validity

Validity in quantitative analysis occurs when an experiment measures what it is supposed to measure. This somewhat obscure definition implies that it can be difficult to decide and to explain what is being measured, and that it is being measured correctly. To this end natural science uses two prerequisites to demonstrate validity. Internal validity is found if the variable controlled by the experimenter in some way changes the dependent variable. External validity occurs when the effects found in the experiment can be generalized to a population (Smith & Glass, 1987).

Emphasis placed on the spoken or written word in human science research requires rigorous interpretation so that the truth emerges from the data . Salner (1986), insists that "it makes more sense to talk in terms of defensible knowledge claims than of validity per se" (p. 110). The data must be repeatedly examined to ensure that meaning has not been imposed upon nor been omitted from the experience (Wertz, 1984). He comments that: "Though the most revelatory data is often implied in the research interest... it's ultimate value and limits are often disclosed only in the analysis and practical application" (p. 38). Polkinghorne (1979) elaborates that "the researcher makes explicit the structure which is implicit in the various examples" (p. 9).

Recognition of phenomena by other people is the phenomenological equivalent of generalizability in natural science. Experimental researchers attempt to sample large numbers, using procedures such as random assignment to ensure external validity. An important method in phenomenology is the elimination of redundant data. Wertz (1984, p. 34), however, cautions against reduction for the sake of eliminating data, and reminds that "repetition expresses an important emphasis crucial to understanding the original situation." Validation is a continuous process, achieved when correspondence between what is said and what is learned occurs. It is not enough that the truth be identified by the researcher. The truth as it emerges must be clearly understood by all who follow the research. That is, would another researcher or reader see what the researchers saw in light of the researchers perspectives (Giorgi, 1975).

Qualitative reliability

In natural science, reliability is a concept distinct from validity although critical in that reliability must be proved in conjunction with validity. If the results of a study can be duplicated, and it can be estimated how much of the result is a true measure not given to systematic error, the measure is said to be reliable (Smith & Glass, 1987). If the size of an error is unknown the study is of little use. It is important to know that each time a similar measurement is taken the results will be either the same or nearly so. Results can then be considered to be reliable in that existing relationships can be explained with more confidence.

Human science views reliability as inextricable from validity rather than a distinct concept. This is because the objective of reliability is the focus on the essential meaning of the phenomenon being studied. Wertz (1984) defines reliability as "the persistence of meaning through the factual variations" in that the many knowings of the one phenomenon never perfectly coincide with each other. He concludes that "truth" (used in the human science sense) and "error" (used from the natural science perspective) "thereby exchange places for neither is absolute". In effect the researcher must exchange the uncertainty of scientific error for the uncertainty inherent in described truth.

Importance of language

Mark Twain is often quoted as saying that the difference between the right word and the nearly right word is the same as that between lightning and the lightning bug. Descriptive research is vulnerable to the vagaries of language tone, shade, and precision in an effort to illuminate the phenomena. Language mediates the structure of concepts (Wertz, 1984). "Language is a central point where I and world meet, or rather, manifest their original unity" (Gadamer, 1975, p. 346). It is the researcher's task to isolate and identify meaning from the co-researcher's words. "The phenomenological researcher assumes a given which is reflected in language, but not equivalent to language. Phenomenological research attempts to clarify and describe carefully the structures through which the givens of experience appear" (Polkinghorne, 1978, p. 6). Wertz (1984, p. 32) comments that "the researcher thereby grasps the whole of the phenomenon through the part expressed by the subject making explicit the implicit root of the matter."

The two methods of study are based on different philosophies which ask different questions and thus have different goals. A qualitative method does not provide solutions for problems but seeks to illuminate a phenomena so that understanding is accurate and hypotheses can be generated to be studied empirically. It can also be used to enrich the results from the data and place those results in a human context.

In the present study quantitative material will be offered. This will comprise Chapter IV immediately hereafter. The qualitative data, will appear in Chapter V.

CHAPTER IV

Results and Conclusions

Results of the research are reported in this chapter. Initially, the results pertaining to the hypothesis of the thesis are reported. Thereafter ancillary findings are considered. For ease of reader recall, the hypotheses are restated followed by a presentation of the actual analysis and the conclusions that are drawn from the data.

Hypothesis I Family members of homicide victims who attend peer support groups or receive counseling support will display better emotional adjustments than family members who have not attended peer support groups or received counseling support.

Analysis

In this study the term emotional adjustment includes some resolution of grief and stress reactions by exhibiting a normal range of somatic complaints measured by the SCL-90-R (Derogatis, 1983) and the Purdue PTSD scale (Hartsough, 1986), and an understanding of emotions measured by the Texas Revised Inventory of Grief. In order to test the above hypothesis the raw score means and standard deviations were derived from the SCL-90-R results. Initial analysis was conducted using the three groups who had received support (counseling, peer support , and counseling plus peer support) compared with one large group consisting of respondents who reported no formal mechanism for support (see Table 1). Secondly, the means and standard deviations from all four groups were compared with normative data from the manual which is based on

974 subjects (Derogatis, 1977). The probability level for all procedures was set at $p<0.05$.

A one-way analysis of variance and a Scheffe pair-wise post hoc procedure was conducted on the nine subscales of the SCL-90-R. No significant difference was found on any subscale between any of the four groups of secondary victims (no intervention, peer support, counseling, and a group of different respondents who had received peer support plus counseling). Table 1 contains the data for this ANOVA.

Table 1

ANOVA Results, Means, And Standard Deviations On The SCL-90-R For Intervention And Non Intervention Groups

	SCALE	NO HELP N=65	PEER N= 13	COUNSELING N=31	PEER & COUN N=14	F
mean	SOM	0.58	0.94	0.80	0.95	R=2.24
S.D.		0.69	0.65	0.64	0.50	P= 0.09
mean	O-C.	0.92	1.21	1.20	1.46	R=2.16
S.D.		0.84	0.89	0.86	0.41	P= 0.10
Mean	INT.	0.87	0.92	1.03	1.33	R=1.12
S.D.		0.91	0.82	0.87	0.71	P= 0.34
Mean	DEP.	1.06	1.33	1.20	1.62	R= 1.87
S.D.		0.88	1.03	0.74	0.58	P= 0.14
Mean	ANX.	0.65	0.92	0.94	1.21	R= 2.60
S.D.		0.77	0.77	0.80	0.69	P=0.06
Mean	HOS.	0.62	0.79	0.92	0.80	R= 0.98
S.D.		0.80	0.56	1.04	0.42	P= 0.40
Mean	PHO.	0.39	0.53	0.46	0.73	R=1.25
S.D.		0.58	0.77	0.58	0.66	P= 0.29
Mean	PAR.	0.78	1.05	0.82	0.99	R= 0.62
S.D.		0.81	0.73	0.71	0.72	P= 0.61
Mean	PSY.	0.52	0.72	0.57	0.60	R= 0.39
S.D.		0.65	0.66	0.57	0.37	P=0.76
Mean	GSI	0.76	0.98	0.93	1.14	R= 1.70
S.D.		0.69	0.71	0.62	0.39	P=0.17

The key to scale abbreviations follows: Som= Somatization, OC= Obsessive Compulsive, INT = Interpersonal Sensitivity, Dep.= Depression, Anx = anxiety, Hos = Hostility, PHO = Phobic Anxiety, Paranoid Ideation, GSI ≠ Global Severity Index.

Due to small sample sizes in two of the three intervention groups, analysis was also conducted on an aggregate of the intervention groups (peer support, counseling and peer support plus counseling). A one way analysis of variance was performed between the no intervention group (N=64) and the aggregate group (N=58). The one way analysis of variance revealed significant differences between the intervention/non intervention group on the somatization scale, obsessive compulsive, anxiety, and the General Severity Index.

The means and standard deviation for all four groups were then compared to raw score means for a normal population, as outlined by Derogatis (1977) in the SCL-90-R manual. Table 2 provides a visual comparison by number while Figure 1 provides a visual comparison by graph.

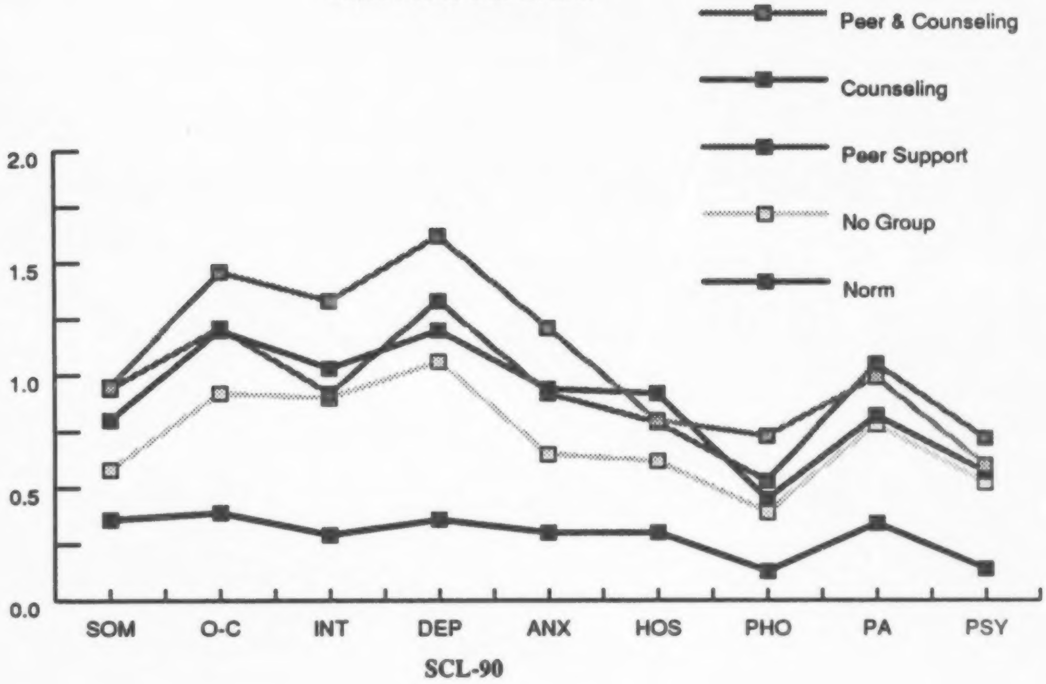
Table 2

Comparison of 4 Family of Homicide Groups (No Intervention, Counseling, Peer Support, Peer Support plus counseling) with Population Norms

SCALE		NORMS N= 974	NO HELP N=65	PEER N=13	CSLG. N=14	Peer +CSLG N=31
Mean	SOM	0.36	0.58	0.94	0.80	0.95
S.D.		0.42	0.69	0.65	0.64	0.50
Mean	OC	0.39	0.92	1.21	1.20	1.46
S.D.		0.45	0.84	0.89	0.86	0.41
Mean	IS	0.29	0.87	0.92	1.03	1.33
S.D.		0.39	0.91	0.82	0.87	0.71
Mean	Dep	0.36	1.06	1.33	1.20	1.62
S.D.		0.44	0.89	0.29	0.74	0.58
Mean	ANX	0.30	0.65	0.92	0.94	1.21
		0.37	0.77	0.77	0.80	0.69
Mean	HOS	0.30	0.62	0.79	0.92	0.80
S.D.		0.40	0.80	0.56	1.04	0.42
Mean	PHO	0.13	0.39	0.53	0.46	0.73
		0.31	0.58	0.77	0.58	0.66
Mean	PAI	0.34	0.78	1.05	0.82	0.99
S.D.		0.44	0.81	0.73	0.71	0.72
Mean	PSY	0.14	0.52	0.72	0.57	0.60
S.D.		0.25	0.65	0.66	0.57	0.37

Figure 1

Data From SCL-90-R



A comparison was also made between the intervention/non-intervention groups and the SCL-90-R norms provided by Derogatis. Table 3 depicts these results and a graph, labeled Figure 2, presents the results visually.

Figure 2

Data From 2 Group Vs Norm Group

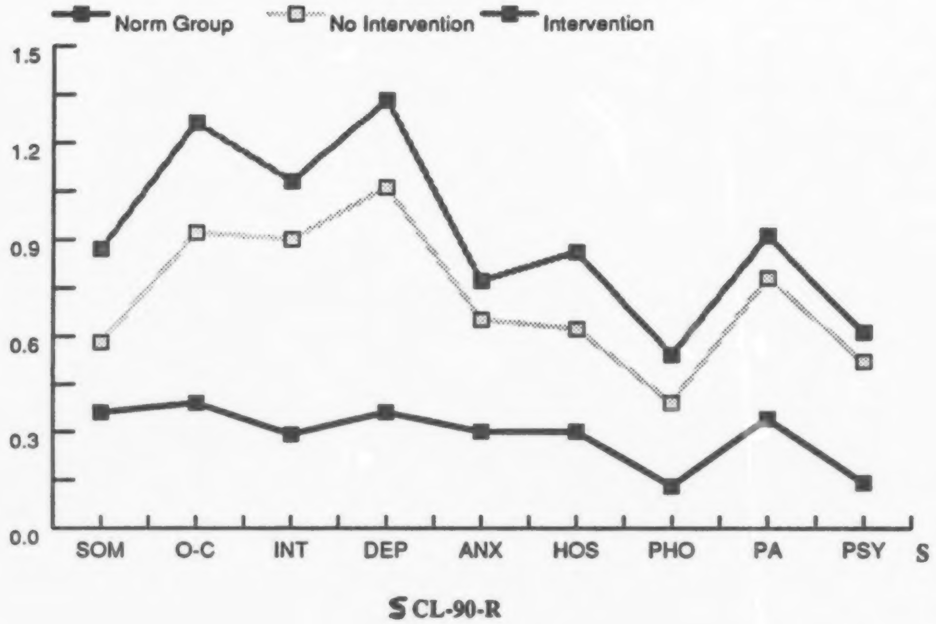


Table 3

ANOVA Results, SCL-90-R Means, And Standard Deviations

		NORM	NO INTERVENTION	INTERVENTION	F
mean	SOM	0.36	0.58	0.87	R=6.07
S.D.		0.42	0.69	0.61	P=0.015
mean	O-C	0.39	0.92	1.26	R=5.51
S.D.		0.45	0.84	0.78	P=0.02
mean	INT	0.29	0.87	1.08	R=1.72
S.D.		0.39	0.91	0.82	P=0.19
mean	DEP	0.36	1.06	1.33	R=3.09
S.D.		0.44	0.88	0.79	P=0.08
mean	ANX	0.30	0.65	1.00	R=6.38
S.D.		0.37	0.77	0.77	P=0.01
mean	HOS	0.30	0.62	0.86	R=2.67
S.D.		0.40	0.80	0.82	P=0.10
Mean	PHO	0.13	0.39	0.54	R=1.78
S.D.		0.31	0.58	0.64	P=0.18
Mean	PA	0.34	0.78	0.91	R=0.89
S.D.		0.44	0.81	0.71	P=0.34
mean	PSY	0.14	0.52	0.61	R=.59
S.D.		0.25	0.65	0.55	P=0.44
mean	GSI	0.31	0.76	0.99	R=4.07
S.D.		0.31	0.67	0.59	P=0.05

Rather than perform a series of univariate t tests on each scale to determine significance from the normed population, the Hotelling's t2 Test was used. This test is the most conservative and therefore the most suitable when comparing multiple measures on the same population. It is also suitable to use this test to make comparisons with normed groups. "When a number of measurements have been made on the same subjects the multivariate test is preferred to the repeated application of the univariate test" (Morrison, 1987). Comparison of family survivors with some intervention with SCL-90-R norms revealed significantly higher values on all subscales ($p < 0.05$). For family members without formal intervention, significant differences from the norms were found by Hotellings t^2 test on only the obsessive compulsive and the interpersonal sensitivity, depression and psychoticism scales. Tables 4 and 5 present the data.

Table 4

Comparison of Intervention/Non Intervention Group By Hotelling t^2 Tests

T**	T=70	.127 F7F		6.818		DF1=9	DF2=56	P<0.00
VAR	T^2	DF1	DF2	F	p	LOWER	UPPER	POP.
1	6.472	9	56	0.629	0.767	0.18	0.97	0.36
2	26.037	9	56	2.531	0.016	0.44	1.40	0.39
3	26.563	9	56	2.582	0.015	0.35	1.39	0.29
4	41.528	9	56	4.037	0.0011	0.56	1.56	0.36
5	13.303	9	56	1.293	0.261	0.21	1.09	0.30
6	10.828	9	56	1.053	0.411	0.17	1.08	0.30
7	13.303	9	56	1.293	0.261	0.06	0.72	0.13
8	19.386	9	56	1.885	0.073	0.32	1.24	0.34
9	22.839	9	56	2.220	0.034	0.15	0.89	0.14

Table 5

Hotelling t^2 Tests Between Western Canadian Sample And SCL-90-R Norms

T**	2=102.376		F=9.979			DF1=9	DF2=49	P<0.00
VAR	T^2	DF1	DF2	F	p	LOWER	UPPER	POP.
1	40.774	9	49	3.895	0.0011	0.50	1.24	0.36
2	73.445	9	49	7.015	0.000	0.79	1.74	0.39
3	53.404	9	49	5.101	0.000	0.57	1.58	0.29
4	88.199	9	49	8.424	0.000	0.85	1.81	0.36
5	48.530	9	49	4.635	0.000	0.53	1.47	0.30
6	27.209	9	49	2.599	0.015	0.36	1.37	0.30
7	23.389	9	49	2.234	0.035	0.14	0.93	0.13
8	37.242	9	49	3.557	0.0002	0.48	1.35	0.34
9	42.288	9	49	4.039	0.0001	0.27	0.94	0.14

Emotional adjustment was also measured by the Purdue Post-traumatic Stress Disorder Scale. The Purdue scale Part A which includes questions specific to the diagnosis of post-traumatic stress disorder correlated 0.7708 with the general severity index of the SCL-90-R. Part B of the Purdue scale contains content not measured by the SCL-90-R as reflected by the correlation of 0.4815. The total scale correlation with the GSI was 0.7616. The overall mean for all homicide study respondents was 41.20 which indicates elevated scores for all groups compared to a study provided by Hartsough (1986). Reliabilities reported for the

PPTSD scale are alpha 0.88 for questions 1-11 (Part A) and alpha 0.55 for questions 12-15 (Part B).

The overall mean on the PPTSD scale for the Grand Canyon study was 29.08 and the mean for workers who removed bodies from the canyon was 36.33. These disaster workers registered much higher distress levels than workers not in the canyon.

Table 6

Means And Standard Deviations For The Purdue Post-Traumatic Stress Disorder Scale

GROUP	MEAN	STANDARD DEVIATION
Total group	41.20	10.60
Peer support	39.38	11.68
Counseling	42.74	10.24
Peer + Cslg	46.79	07.40
No intervention	39.63	10.84
Grand canyon	29.08	not reported
Grand canyon body removal wkrs.	36.33	not reported

It should be noted that the scores for the peer support group match those for people who did not have any formal intervention.

Emotional adjustment with regard to grief was measured by the Texas Revised Inventory of Grief. The means and standard deviations are presented in Table 7. No significant differences were found between any of the four groups of families of homicide victims. However, when the scores for present feelings in the manual are compared to the TRIG population differences result. Scores for the total group on the TRIG were elevated above the mean provided in the manual for past feelings as 17.8 for people who lost a loved one 1-5 years ago. For people who had lost a loved one 5-10 years ago the manual contains a mean of 16.6. The total scores are within range of present feelings presented in the manual for both time categories. The sample size was considered to be less than would provide valid data by an analysis of varience.

Table 7

Texas Revised Inventory Of Grief 4 Group Means And Standard Deviations

	Part 1 (Past)		Part 2 (Present)	
	Mean	S.D.	Mean	S.D.
Total group	23.98	6.91	49.01	10.17
Counseling	27.74	7.79	48.25	10.73
Peer Supt.	20.62	6.08	46.54	11.69
Peer + Cslg	26.71	3.95	54.71	07.18
No Intervt	22.26	6.90	48.64	09.90

Table 8

Texas Revised Inventory Of Grief Time Related For 1–5 Years Means And Standard Deviations

	Part 1 Past feelings		Part 2 Present feelings	
1-5 years	Mean	S.D.	Mean	S.D.
Norm	17.8	0.70	16.6	0.07
sample	37.1	1.40	34.3	1.3

A comparison of results specific to the relationship of time to grief resolution will be discussed in consideration of Hypothesis II.

Conclusion

Scores reflect a high degree of distress on all measures of grief and stress for all groups. The results from the SCL-90-R, the Purdue Post-Traumatic Stress Disorder scale and the Texas Revised Inventory of Grief consistently report scores on all group survivors of homicide victims that appear elevated above reported population norms regardless of treatment or no treatment. The sample does exhibit post-traumatic stress via these indices. Significant differences, using the most conservative measure between the combined intervention groups and the norms reported by Derogatis (1985) were found on all scales. In the non intervention group, significant differences from the norms were found on the obsessive compulsive, interpersonal sensitivity, depression and the global severity index. When the four groups (peer support, counseling, peer support plus counseling, and a no intervention group) were compared with each other on the SCL-90-R and the TRIG no significant differences were found as per Tables 1, 2, and 7.

Hypothesis II. Family members of homicide victims who attend peer support groups will take less time resolving their grief than those who have not attended a peer support group.

Analysis

Results of the Texas Revised Inventory of Grief were analyzed to determine means and standard deviations for all groups (peer support, counseling, counseling plus peer support and no intervention). Reliability for the TRIG part I (past feelings) was 0.84 compared with 0.87 in the manual. Reliability for the TRIG part II was 0.89, which is the same as the manual. A one-way analysis of variance was completed. The relatively large standard deviations are thought to be a result of the heterogeneity of the population compared to the homogeneity in the TRIG sample which was based on grief reactions of people who had lost a loved one primarily due to natural causes. Results of the ANOVA show that the counseling group had significantly higher scores when compared with the peer support group and the no intervention group on past feelings indicating that they had not yet fully resolved their grief.

Table 9

Means And Standard Deviations 4 Group Analysis Of Texas Revised Inventory of Grief

	Trig I (Past)			Trig II (Present)	
Group	Mean	S.D.	N	Mean	S.D.
Peer Support	20.62	06.08	13	46.54	11.69
Counseling	27.74	07.79	31	48.26	10.73
Peer & Couns.	26.71	03.95	14	54.71	07.18
No Intervent.	22.26	06.91	65	48.63	09.91

When the three intervention groups were collapsed into one group significant differences were found between the intervention and non intervention groups past feelings of grief. Table 10(a) contains the data for this conclusion.

Table 10 (a)

Means And Standard Deviations TRIG Two Group Analysis

		Trig I (Past)			Trig II (Present)		
Group	N	Mean	S.D.	Prob.	Mean	S.D	Prob.
Intervent.	58	25.90	07.19	.005	49.43	10.52	0.66
No Intervent.	64	22.26	06.91		48.63	09.91	

Given the small sample size of some groups a further breakdown by time was not a statistical option. The number of respondents (12) who had lost a family member under 12 months from the time reported were not considered to be sufficient for statistical analysis. One hundred and four people recorded 1-5 years since the murder of their family member and 11 people recorded from 5-7 years.

A t-test was conducted on the difference between past and present feelings of grief for the 104 respondents who recorded the death as between 1-5 years, and the normed results for 1-5 years. Significant differences from the norm were found on both past and present feelings as measured by the Texas Revised Inventory of Grief, as shown in Table 10(b).

Table 10 (b)

TRIG Time Related Means And Standard Deviations

Part I	Past Feelings			Part 2	Present Feelings	
1-5 years	N	Mean	S.D.	N	Mean	S.D.
Norms	152	17.8	0.70	143	16.6	0.07
Family	104	24.09	7.70	164	48.96	10.66

Conclusion

People who have sought counseling have a more difficult time resolving their grief than people who receive peer support or have not sought or received psychological intervention. When the overall group of family members is examined differences in grief resolution is not apparent. However, significant differences were found between families of homicide victims as a group and the sample scores reported by Fashingbauer (1981). The large standard deviations in the families of homicide groups indicates a more heterogeneous response than those in the normed group. An examination of group responses within the 1-5 year period, permitted the conclusion that there are no differences between the grief reactions of people who had sought support and those who did not seek support following the murder of a family member. However, family members did exhibit higher and longer lasting grief responses than reported for the TRIG norming group who also experienced the death of a loved one, but from natural causes.

Hypothesis III. All persons in a homicide loss situation will be characterized by shattered assumptions but the more recent the murder, the greater the scores indicating a higher degree of confusion and mistrust of the world.

Analysis

A one-way analysis of variance and Scheffe post-hoc pairwise contrasts were performed on the four groups of the World Assumption Scale. No significant differences were found between the three groups (peer support, counseling, peer support plus counseling) and the no intervention group. To further investigate the hypothesis the three intervention groups were collapsed into one group, labeled intervention in order to compare it with the no intervention group. A one-way analysis of variance was performed on the two groups but no significant differences were found.

World Assumption scores from the sample group of untraumatized Albertans were then compared to those from the families of homicide victims. The intervention and non intervention groups are compared in Table 11 with the total mean response from the Alberta sample of non-traumatized people. Alpha reliabilities are included for the Alberta sample. The reliabilities mirror those provided for the three basic assumptions by Janoff-Bulman (1989).

Table 11

Means And Standard Deviations Alberta, Intervention And Non-Intervention Western Canadian Homicide Families

Was Scores	Alberta (N=41)			No Intervention (N=65)		Intervention (N=58)		
	Mean	S.D	Alpha	Mean	S.D	Mean	S.D.	Prob.
Ben. People	4.84	0.85	.63	4.73	1.04	4.83	0.77	0.11
Ben. World	4.32	1.13	.79	4.43	1.01	4.34	1.04	0.84
Justice	2.93	1.04	.79	2.65	1.08	2.41	1.01	0.06
Control	3.48	1.03	.75	3.34	1.06	3.03	1.98	0.11
Randomness	3.13	0.98	.49	3.82	1.13	3.52	1.21	0.01
Self-Worth	5.04	0.87	.54	4.66	1.17	4.77	0.97	0.72
Self-Control	4.46	0.84	.77	4.54	0.92	4.20	0.98	0.73
Luck	4.34	0.89	.81	4.16	1.18	3.90	1.71	0.14
Ben. Of World	9.16	1.75	.83	9.16	1.88	9.17	1.60	0.42
Meaning Of World	3.27	2.22	.79	2.16	2.22	1.93	2.43	0.01
Self-Worth	13.94	1.98	.80	13.36	2.47	12.87	2.26	0.03

The three groups, Alberta, intervention and non-intervention, were compared using a one way Anova and a Scheffe post hoc procedure. The only variable of the eight specific subscales to indicate significant differences was Randomness. The differences were between the Alberta sample and the intervention group. The Alberta sample attributed fewer events to randomness than the intervention group. The only differences found between groups on the three major subscales was on the Meaning of the World subscale. The Alberta sample found significantly more meaning in the world than the intervention group. The data for the differences can be found in Table 12.

Table 12

WAS Differences For Families Of Homicide With Intervention, Without Intervention And Non Traumatized Albertans

Scale		Sum Of Squares	Mean Squares	Prob
Randomness	Between groups	185.3542	92.6771	0.0118
	Within groups	13476.4977	84.2281	
Meaning of the World	Between groups	761.8758	380.9379	.0123
	Within groups	13476.4977	84.2281	

Conclusion

People who have not been traumatized attribute less randomness to events and believe that there is more meaning in their lives than family members of homicide victims. When scores between groups of secondary victims were compared by gender, men were found to have a feeling of being more in control of their lives than women. Men also found more meaningfulness in their lives than women.

Hypothesis IV. A number of interventions and associated factors will emerge as facilitative of adjustment. Family members of homicide victims who perceive significant emotional support from other people will be more adjusted than those relatives who feel they have been isolated by the extended family and the community.

Results of perceived support in Western Canadian family survivors of homicide are shown in Table 13.

Table 13

Perceived Support In Western Canadian Family Survivors Of Homicide Victims.

N=127	YES	NO
I have received emotional support from friends	109	15
I have been a member of a peer support group	27	97
I have had counseling following the homicide	45	78
I have received support from family members	112	12
I have received emotional support from helping professionals	50	73

In light of the findings that an average of all groups of family survivors of homicide victims scored above average in the TRIG, the SCL-90-R and the Purdue PTSD scale, and that 86 % of the respondents indicated that they had received emotional support from friends and 88% indicated emotional support from family, the hypothesis is not confirmed. Hypothesis IV will be discussed further in Chapter V where results from the qualitative analysis are presented.

Hypothesis V. Various demographic factors will be related to adequacy of resolution.

Demographic characteristics considered to be important in this study were age and gender of respondent, age of victim, perceived closeness of the relationship, actual relationship, and the amount of time that had elapsed since the murder.

Characteristics of respondents

People who responded to the families of homicide survey ranged in age from 17-78 years old. The mean age was 43 years, median age 42 years and the modal age was 23 years. Gender of respondents was 33% men to 66 % women.

Of the 127 people who replied, only 5 people identified themselves as native. Education level of the respondent ranged from 6 to 25 years of education. The average level of education was 11.62 years while the mode and the median were 12 years of schooling. Thirty-two people identified their brother and 32 identified their son as the deceased person. Twenty people said that they had lost their daughter and 16 identified their sister as having been murdered. Seven people had lost their husband while 5 indicated that their father had been killed and 4 their mother. Three people said that their aunt had been killed; 1 grandson, 1 niece and 4 were other relations. In all 72 people had lost a male family member, while 44 people had lost a female family member. The victims' ages ranged from infant to 82 years old. The mean age of victims was 30 years old, the modal age 19, and the median 26. Although the mode was 19, a bi-modal model could be proposed in that 10 people recorded 27 as the victim's age. Forty-four percent of the respondents said that their relationship with the deceased was closer than most. Twenty-two percent said that the relationship was closer than any; 19% said about as close as any other relationship; 10% said not as close as others; and 1.6 % said not very close.

Analysis of demographic variables

Sixty-six percent or 2/3 of the people who responded to the survey demonstrated a high degree of closeness to the person who had been killed. This closeness may reflect a higher degree of commitment by family members to make their loved one's death give meaning to their own life. By helping other traumatized grieving families respondents may also be hoping to have some good come from such a difficult experience. The diverse age range indicates a heterogeneous population whose responses could represent a population. It is difficult to know, however, if the sample is comprised of more traumatized, grieving people or those who are beginning to recover and better able to handle the questionnaire.

Age was negatively correlated with grief results which may mean that younger people do not anticipate that disaster can happen to their family as easily as older people who have had time and experience to formulate a way of looking at the world that is less psychologically troublesome. Although the lowest education level of survivors was grade 6, the mean of grade 12 indicates a degree of literacy that is well above the grade eight level usually accounted for in test construction. Most people, therefore, should have had little problem understanding the questions and their answers could be taken to be valid.

Analysis of scales by closeness of the relationship

No two groups of homicide survivors were significantly different from each other when the actual relationship of the victim to the bereaved was investigated (see Table 14). Analysis of grief resolution was further investigated according to the perceived closeness of the relationship. Twenty-eight people said the relationship 'was closer than any relationship I've had before or since'; 56 people endorsed the item 'closer than most relationships I've had with other people'; 25 indicated that they thought that the relationship with the deceased was 'about as close as most relationships with others'; while 13 said that the relationship was 'not as close as others' and 2 said that their relationship with the deceased was 'not very close at all'.

Table 14

Texas Revised Inventory of Grief- Part I

Group	MEAN	S.D.	N
Closer than before or since	25.93	7.67	28
closer than most with others	24.89	7.33	56
About as close as most	23.08	6.97	25
Not as close as most relationships	22.15	6.66	13
Not very close at all	10.50	7.44	02

The only significant differences on the Texas Revised Inventory of Grief part I, were found between the not very close group and the closer than any and closer than most groups. The results are not considered to be valid, in that only 2 people belong to the category not very close at all. However, the results show that the closer the relationship the higher the scores with regard to remembered or past feelings about grief found in families of homicide victims. No significant differences were found between groups with regard to part II (present feelings of grief).

Table 15

Texas Revised Inventory of Grief- Part II

Group	MEAN	S.D.	N
Closer than before or since	51.86	11.50	28
Closer than most with others	49.93	08.53	56
About as close as most	47.32	09.25	25
Not as close as most relationships	42.46	11.39	13
Not very close at all	26.00	02.83	02

Gender differences in grief

Of the 104 people who had lost a family member by homicide reported as being between 1-5 years ago, 43 were men and 84 women which is a ratio of 2 women to 1 man. In order to investigate the probability that grief scores for women would be significantly higher than for men as noted by Fashingbauer (1987), t-tests were performed on part I and Part II of the TRIG and compared by gender. Women were found to have a significantly higher score than men on remembered grief measured by "past feelings." No significant differences were found between men and women on part II which measures present feelings. Table 16 presents the data for gender differences in grief responses.

Table 16

Gender Differences In Grief Response On The TRIG

	Trig Part I (Past)			Trig Part II (Present)		
	Mean	S.D.	Prob	Mean	S.D.	Prob
Women	22.37	6.43	00.04	46.53	9.64	0.07
Men	25.10	7.80		49.94	10.45	

Women and men were separated by their described closeness of the relationship to the deceased. This procedure was conducted to investigate the possibility that women who felt especially close to the deceased might have higher grief scores than men who felt close to the deceased. Again, women were found to have significantly higher scores on past feelings of grief but no significant differences were found between genders on scores that reflect present feelings.

Gender differences in Symptom Checklist Scale-90-Revised

Differences in the perceived health of men and women were examined by t-tests. Significant differences were found on two subscales of the SCL-90-R. women reported more physical ailments than men and scored significantly higher on the Phobic Avoidance scale. The data for these conclusions appears in Table 17.

Table 17

Gender Differences On The Scl-90-R

Gender	Scale	Mean	Standard Deviation	F Value	Prob
Women	Som	0.56	0.61	1.31	(Pool) 0.048
Men		0.82	0.70		
Women	Pho	0.22	O.34	3.86	(2 Tail) 0.00
Men		0.60	0.69		

Gender differences in the World Assumption Scale

Differences in the way that men and women perceive their world were investigated by t-tests. Significant gender differences between intervention and non intervention groups were found at P<0.05 on the Control subscale and the Meaningfulness of the World major basic assumption scale. Men (N=42) registered significantly higher scores than women (N=84) indicating a sense of feeling more in control than women. Similarly men's scores reflected more meaningfulness in their world than did women's.

Conclusion

Demographic factors that affected grief resolution are few, since scores on the SCL-90-R, Purdue PTSD scale, and the TRIG were all above the norms and expected scores. Differences between homicide family groups found on the World Assumption Scale were between a contrast group of untraumatized Albertans and three groups combined into an intervention category. The Alberta sample ascribed fewer events to randomness than the intervention group and found more meaning in their world than the intervention group. Women reported feeling less in control of their lives than men and found less meaning in their lives than men on the World Assumption Scale. Given that people in the intervention group found significantly less meaning in the world than average Albertans and given that women find less meaning in the world than men, it is reasonable to conclude that the women in the intervention groups have been profoundly affected by the homicide and have shattered assumptions about meaning in the world. The literature leads one to expect higher grief scores for women than for men two to five years after a death. The results of this study indicate that men have just as strong feelings of grief two to five years after the murder as women although women remember feelings of grief. Women, however, remember their grief as being more severe than men remember their grief.

Summary

Scores for all the groups of family members reflect a high degree of distress on all measures of stress and grief. People who had received formalized support were more distressed than those without formal intervention in somatization, obsessive compulsiveness, interpersonal sensitivity, anxiety, and Global Severity. Similarly people who had attended counseling had significantly more grief than other survivors indicating a lack of resolution in their grief. However, all family members of homicide victims displayed higher grief than people who had lost a family member from primarily natural causes. There are no differences between the grief reactions of people who had received formal support and those who did not following the murder of a family member within 1-5 years after the death. Again, all family members whose loss was between 1-5 years ago was significantly higher than for people whose grief was due to a death for primarily natural causes in the same time frame. Women were more likely to remember their past grief as more intense than men but scores were not significantly different on present feelings about grief. As expected, the closer the perceived relationship to the murdered family member the more intense the grief.

Shattered assumptions are considered to be stress reactions that occur cognitively following trauma (Janoff-Bulman, 19815). Nontraumatized Albertans felt they had more meaning in their lives than the intervention group. They also attributed less to randomness than secondary victims in the intervention group. Women indicated less meaning in their world than men. Women also reported feeling less in control of their lives than men reported feeling. Most people (86, or 88%) who replied to the survey reported that they had received support from friends and family and indicated in qualitative responses that this support was very important to them. Formalized support was sought by those exhibiting the greatest need for help. As was mentioned immediately above, some qualitative data was collected and analyzed. Hence the next chapter will be devoted to the qualitative aspects of this study. The final chapter, Chapter VI, will be an integrated discussion and conclusion.

CHAPTER V

Qualitative Results And Conclusions

Some questions in the mail-out package solicited non quantifiable data. The findings from such subjective inquiry regarding "what you have found to be helpful and what has not been helpful to you in dealing with the murder of your loved one" are presented in this chapter. In addition, information about the effect the murder had on the respondents' significant relationships is discussed and analyzed.

Procedure

Each handwritten page submitted was examined. Each discernibly separate thought was recorded as it arose. A total of 140 separate thoughts were recorded and coded (see Table 18). Each record was re-read to check that all thoughts had been included on the list and were appropriately coded. The separate thoughts were then placed in groupings of similar themes. The themes were arrived at in two ways. First, each thought was recorded for a frequency count so that an estimate of the most important or the most frequent themes could be established. In qualitative research "Structure (essence of form) is a phenomenon that is revealed in several different ways, but is seen as having the same essential meaning when it is perceived over time in many different situations" (Valle & King, 1978, p.15). Secondly the themes were grouped in an order that was logical to the researcher. The first order clustering of themes were then examined to allow a higher order of meaning to be extracted.

Ten themes emerged from 594 individual meaning units (see Table 19). The themes represent a synthesis of the data provided by family members of a homicide victim. Not all people, however, wrote about each thought or higher order theme; rather they expressed the ideas that were most significant to them as being helpful or not in resolving their grief. The question presented was designed to be open ended so that significant, and perhaps unexpected, findings could emerge. The themes that emerged from the data (Table 19) follow the individual thought units identified in Table 18.

Table 18

Separate Thought Units from Written Responses of Family Members of Homicide

	Helpful		Not Helpful
1.	Police Helpful (N=17).	2.	Police Not Helpful (N=14).
3.	Friends Supportive (N=37).	4.	Other People Don't Understand (N=12).
5.	Friends Listened & Talked (N=18).	6.	Friends Didn't Want To Hear N=10).
7.	People Allowed Time To Heal (N=2).	8.	Community Expects Quick Grief Resolution.(N=6)
9.	Court System Helpful (N=1)	10.	Lost Faith In Court System (N=15).
11.	Somebody Doing Something I.E. Survey (N=15)	12.	People Were Too Supportive (N=2).
13.	Found Faith In God N=3).	14.	Lost Faith In God (N=1).
15.	Dealt With Feelings (N=9).	16.	Began To Use More Alcohol (N=1)
17.	Unable To Continue Reply (N=2).	18.	Others Feeling It Was Victim's Fault (N=5).
19.	Their Turn Will Come (People Who Support The Perpetrator). (N=3).	20.	Media Not Helpful (N==9).
21.	Loved One Buried Close By (N=2)	22.	Re-Living Event When Similar Things Happen (N=13).
23.	Feeling They Had Done The Best That They Could For Deceased. (N=2).	24.	Clergy Not Helpful (N=4).
25.	Accept That The Family Must go On (N=8).	26.	Able To Maintain Faith In God (N=22).
27.	Philosophy That To Each A Purpose (N=7).	28.	Feelings Of Rage At Young People The Same Age As The Murderer. (N=3).

Helpful	Not Helpful
29. Time Heals (N=13).	30. Psychological Counseling & Support Group Not Available. (N=2).
31. Feeling That Death Has Given A Purpose To Life.(N=1).	32. Feelings Of Rage At Perpetrator (N=12)..
33. Stopped Drinking (N=2).	34. Difficult Being Away From Family After The Event (N= 2).
35. Visit Grave Brings Comfort (N=4)	36. Trying To Answer Why The Murder Happened (N=7).
37. Friends Left Her Alone, Helped (N=1).	38. Murderer Released (N=1).
39. One Incident In A Series Of Bad Events Distanced Feelings (N=1).	40. Perpetrator Received Little Punishment (N=2).
41. Going To The Trial Helped (N=3).	42. Going To Trial Not Helpful (N=1).
43. Keeping A Journal Of Feelings. (N=4).	44. Details Of Death Not Helpful (N=3).
45. Plan For The Future (N=1). Beautiful Music (N=1).	46. Becomes Too Emotional E.G.,
47. Able To Continue Working Supportive Boss (N=7).	48. Fear Of Loved Ones Dying (N=1).
49. Trying To Have Law Changed (N=1).	50. Counselor Overwhelmed By Reactions (N=3).
51. Counseling & Support Group Helped (N=17).	52. No Follow Up From Agencies (N=2).
53. Belief In Reincarnation (N=2).	54. Prayed For Murderer (N=3).
55. Support Of Mate (N=10).	56. Spending Time Helping People Similar To Perpetrator (N=1).
57. Questionnaire Too Difficult (N=3).	58. Did Not Avoid Talking About Deceased (N=3).
59. Feeling Victim On Trial Hurt (N=3).	60. Able To Express Emotions (N=2).

Helpful	Not Helpful
61. Law Unfair-Young Offenders. Act Wrong (N=4).	62. Friends Prayers (N=2).
63. Family Support (N=30).	64. Friends Who Felt Victim's Fault (N=7).
65. Perpetrator Able To Appeal (N=1).	66. Talking About Deceased (N=16).
67. Feeling That Sentences Not Strong Enough (Capital Punishment) (N=10).	68. Pleasant Memories Of Deceased, (N=9).
69. Unaware Death Was Homicide. (N=2).	70. Belief That Others Also Suffer At Random (N=3).
71. No One Would Answer Family Questions (N=2).	72. Media Showed Respect (N=1).
73. Hospital Staff Not Helpful (N=4).	74. Made A Collage Of Deceased. (N=1).
75. Murderer Not Charged (N=3).	76. Reading Self-Help Books On Grief (N=4).
77. Fear Murderer Will Repeat Killing Or Respondent Will Be Killed (N=8).	78. Not Talking Or Thinking About Deceased Helps (N=7).
79. Feeling That Killers Have More Rights Than Victims (N=12).	80. Pretends Person Never Lived. (N=1).
81. Feelings That Murder Has Second Chance. Victim Dead. (N=4).	82. Exercise-Daily Brisk Walk. (N=5).
83. Murder Not Punished (N=1).	84. Feeling That One Must Endure. (N=7).
85. Memory & Mental Process Not The Same Is Difficult (N=2).	86. Clergy Helpful (N=2).
87. Being Alone Distressing (N=3). 87b. Funeral Director Helpful (N=1).	88. Taken Advantage Of By Colleagues While Grieving (N=1).

	Helpful		Not Helpful
89.	Previous Experience Of Loss (N=4).	90.	Incompetent Professionals (Psychologists, Doctors Etc.) (N=1).
91.	Visiting Places Where Loved One Found Joy (N=1).	92.	Feeling That Justice Was Not Done (N=22).
93.	Thoughts Of Suicide (N=5).	94.	Another Relationship Did Not Help (N=1).
95.	Large Funeral (Remembered By Many) (N=4).	96.	Moving Residence Not Good (N=1).
97.	Try To Make Good Come From Death (N=3).	98.	Support Group Too Broad (N=3).
99.	Keeping Busy (N=3).	100.	Knowing Details Of Death. (N=1).
101.	Feeling That Nothing Will Bring Victim Back (N=9).	102.	Professionals Supportive. (N=1).
103.	Repeated Pictures In Media. (N=1).	104.	Knowledge That Loved One Would Want Person To Enjoy Life (N=1).
105. 105b.	Last Words Haunting (N=1). Directions From Loved One In A Dream To Go On, Say Good-Bye (N=1).	106.	Pictures Of Deceased. (N=1).
107.	Likes To Think Person Protecting Her (N=1).	108.	Counseling Not Helpful (N=1).
109.	Helped To Realize That All Life Short And Precious (N=3).	110.	Nightmares, Inability To Sleep (N=5).
111.	Distance From Event Made Easier. (N=2).	112.	Belief That Bereaved Will Meet Loved One In The Hereafter. (N=5).
113.	Being Able To Help Other Families With Loss (N=6).	114.	Having Another Child (N=1).
115.	Belief That Lack Of Emotion Is Because Family Is Logical (N=2).	116.	Friends And Co-Workers Afraid Of Bereaved (N=1).

Helpful	Not Helpful
117. Belief That Family Member Who Took Children's Lives Not The Real Person (N=1).	118. New Family Fills Empty Spots Of Life (N=2).
119. Medication (N=4).	120. Setting Up Memorial Fund (N=1).
121. Feelings Of Rage At Parents Who Did Not Care For Brother. (N=1).	122. Anniversaries (N=4).
123. Feeling That Victim Too Young To Die (N=3).	124. Randomness Of Event (N=2).
125. Victim Too Good To Die (N=4).	126. Length Of Investigation. (N=1).
127. Overwhelming Feeling Of Grief (N=11).	128. Feels Closer To Have Loved One's Possessions (N=1).
129. Medication Didn't Help (N=2).	130. Knowing Details Of Death (N=2).
131. Comfort Knowing Victim Was Trying To Become Closer To The Family (N=1).	132. Nothing Helps (N=11).
133. Feelings Of Anger That Researcher Doesn't Understand By Use Of Insensitive Questions (N=4)	134. Any Reminder Painful (N=1).
135. Refuse To Be Intimidated By Murderer (N=4)	136. Feelings Of Rage Help (N=1).
137. Belief That Survivor Will Never Recover (N=3).	138. Medical Examiner's Office Helpful (N=1).
139. Feeling That Victim Now In A Better Place (N=3).	140. Medical Examiner Not Helpful (N=1).

Table 19

Higher Order Thematic Descriptions Of Helpful And Not Helpful Experiences Of Family Survivors Of A Homicide Victim

Thematic Clusters	Thought Units	Synthesis
1. Police And Judicial System	1,2,9,10,38,40,42,41,61,65,67,71,75,79,81,83,92,126,130 N=116	Trial helpful if justice seen to be done. Concern about justice of laws and feelings of being insignificant.
2. Perceived Support Important To Grief Resolution	5,6,7,8,12,34,37,47,55,62,64,87, 88, 116 N=72	Support important to most. Feel isolated if avoided or misunderstood by friends.
3. Religious Or Philosophical Framework	13,14,24,26,27,31,36,53,54,70,86,107,109,112,117,139 N=68	If firm belief in religion or philosophy, there seems to be a greater acceptance of the event.
4. Role Of Help (Professional)	30,50,51,52,87b,90,98,102,108,138,140 N=35	Many who received professional help were pleased. Others felt more rage when not suitable for them.
5. Importance Of Feelings	15,16,28,29,32,39,43,58,60,66,76,78,89,93,101,111,115,121,127,136,137 N=110	Many acknowledged importance of feelings or they preferred not to feel.
6. Trauma Specific	22,44,48,57,77,85,100,110,124,135 N=42	Nightmares, re-living event in the mind fear of killer , fear loved ones dead, confusion, etc. characteristic of PTSD.
7. Assume Personal Growth & Health Responsibility	118,114,25,33,45,49,56,84,94,96,97,113,120, 82,99,119, 129 N=49	People make progress when they assume responsibility for own lives and humankind.
8. Not Forgetting Loved One	80,11,17,21,35,46,68,74,91,95,105,106,122,128,132,131,133,134 N=64	Pictures, memories, physical reminders help bereaved not to forget. Some set up memorials.
9. Victim Character	18,19,23,59,64,123,125 N=27	Distressing to have victim not able to defend self in court & have people draw wrong conclusions from media.
10. Media	20,72,103 N=11	Repeated pictures, constant interviews dehumanizes the death.

Police and judicial system

When categorizing the helpfulness of police, people felt that while individual members of the police had been helpful, the over-riding concern of the police force was for the perpetrator. Individuals spoke about the kindness of a particular officer, but overall felt that questions by the family were a nuisance to the police. One respondent who was a police officer, devoted his letter to his ambivalent feeling with regard to the way the police handled his father's murder. Some people lost faith in the judicial system while others were encouraged by due process of the law. Those who expressed difficulties thought that justice had not been done. In these cases the murderer had been apprehended and released; or not been charged; or had received an insufficient sentence; or in the case of young offenders, found the laws to be unfair. This unfairness was often expressed by the thought that murderers get a second chance but that the victim never gets another chance at life. Some people stated that "killers have more rights than victims." This account of feelings about the justice system was written by a 43 year old mother (GSI-2.52, norm 0.32) of a 19 year old son killed at a bush party. "I think the law stinks… The guy is running around free until court… why isn't my son running around free until court? They talk about their rights when they take the law into their own hands they gave up their rights he should be put to hard work." Others expressed frustration that the focus of the attention in the courts was on mitigating factors on behalf of the defendant. The length of the investigation was given as a factor that precluded grief resolution. Knowing the circumstances and details of the death were found to be helpful to some and distressing to others. Many people were distressed that the characterization of the victim by the defense in the court room bore little resemblance to their family member. Implied in discussions of the justice system as it affected their family was the thought that the trial was a milestone for grief recovery.

Perceived support from friends and family.

For the most part, people talked about the importance of their support system spontaneously (quantitative data from structured questions are found in Chapter V). Family members discussed emotional support either in positive terms or in terms of omission. Many people said that being able to talk to friends and family was critical to their recovery. Many others spoke about the lack of emotional support from friends, family, co-workers, etc. as being a debilitating factor in their recovery. They were upset that friends were afraid and uncomfortable in their presence. The consensus among these respondents was that the community expects a quick resolution to grief and becomes impatient with prolonged periods of mourning. Those who mention a positive support system were appreciative that they had been allowed time to grieve and allowed to talk at length about the murder. Religious people found comfort in the prayers of friends and their church congregation. A few people said that friends knew the person well enough to let the person alone to grieve which they perceived to be a positive event whereas most were distressed by isolation. Some placed the support of their boss as a significant support. One person was upset that professional colleagues had taken advantage of his personal grief to further their own interests.

Religious or philosophical framework

Several people were clear that without their faith in God they would never have been able to surmount the trauma of the homicide. Fewer people said that faith in God had been destroyed. Indeed actions of the clergy were not associated with faith in many people's minds. If the clergy had been little source of comfort, several people pointed out that this individual action did not influence their own faith. Faith in God was only one belief that sustained people as they struggled to find meaning. A strong belief in God enabled some to pray for the murderer. For some a philosophy that all things happen for a reason helped to anchor them. A belief in reincarnation was a comfort to a few people. Others wrestled with why the murder happened to a member of their family and could find no meaning. Order was established for some by a belief that things happen at random. One person said that comfort was found in the belief that the victim was protecting her from his new location in heaven. The realization that life was short and precious, stems from a desire to have some good come from the death. Many people commented that without the belief that they would meet the loved one in the hereafter and/or that the deceased was in a far better place they would have more difficulty than they felt was manageable. Belief that a loved one was deranged was important to the survivor of a family where the victim had been killed by another member. It was evident that no matter how strong the belief, the pain of coping with the homicide of a loved one was not removed, merely made bearable.

Role of helping professionals.

Responses included comments that psychological counseling or a support group was not available, but they would have liked some help. Others were less positive, reporting that the counselor had been overwhelmed by their emotions, the support group too broad to meet their needs of families, or that the counseling had not been helpful. At times rage was evident as in a comment about incompetent professionals. A traumatized father of a 19 year old wrote "I trust that this survey will be used more practically than some meaningless academic study, whose sole purpose is the gathering of data". The fact that several people made comments about difficulties receiving intervention and about the quality of the interventions underscores the importance of a more widely distributed knowledge base about trauma. Professionals familiar with trauma understand that emotions are extreme and profound. One family was upset that there had been no follow-up by any agency with whom they had come in contact.

There were also favorable remarks about counseling interventions. High SCL-90-R scores in the counseling group indicate that the people who received counseling were likely the most needy. The importance of the Medical Examiner's or Coroner's office was acknowledged by a balance of opinion both for and against the treatment families had received. One response concerned how well a funeral director had helped the family.

Recognition that feelings are important in managing grief

The majority of respondents who discussed feelings recognized that their feelings were important to acknowledge and air in order to move through their grief. Others, however, were specific about trying not to "feel". For example, pretending that the person had never existed, or commenting that the family had always been logical and unemotional, or not talking or thinking about the loved one were ways some people tried to deal with the event. These methods were noted as well as the increased use of alcohol. Rage motivated some family members to continue but for others it was viewed as being counter-productive. A journal kept to record feelings helped as did reading self-help books about grief. A sense of control generated by the thought that one could join the loved one by committing suicide was also viewed as being positive, whereas a sense of helplessness pervades the comment that nothing will ever bring the loved one back and indicates an overwhelming sense of grief specified in many letters and articulated in comments such as "I will never recover" (from this loss).

Trauma related ideation

Although most grief and trauma was intertwined in the responses received, a few are characteristic of psychological trauma. Re-living in the event was distressing for several, even though they had not been present at the homicide. Television and newspaper accounts were the most frequently cited, although for one person the questionnaire was difficult. Fear that other loved ones may die or be murdered is also characteristic for survivors as is the idea that the murderer will come back to kill other members of the family or for the respondent. Some mentioned a difficulty with concentration and memory that is a classic sign of extreme stress, as are nightmares about the event or similar circumstances and an inability to sleep. Inability to assimilate the idea of the randomness of the murder is well known as a cognitive difficulty for trauma victims (Janoff-Bulman, 1985,1989). One survivor indicated that a refusal to be intimidated by the murderer was a sign of strength and resolution, and so acknowledged by the re-framed notion that cognitively assessing the murderer was important otherwise the person would feel overwhelmed.

Assume responsibility for personal growth and/or betterment of humankind

Accepting the responsibility for the family to not only endure but to progress was articulated in a number of ways. Some felt that an overall plan for the future was important. Some stopped self-destructive behavior such as alcohol and other unsatisfactory relationships, or commented that moving did not help escape from the impact of the event. Others dedicated themselves to societal changes like changing the *Young Offenders Act*, or, on an individual basis, by working with disadvantaged people to reduce the number of potential criminals in an effort to try to make some good come from the death of their loved one. Several people said that trying to help other bereaved people provided the sense of community that they had needed in their sorrow. One young mother who had lost her own mother said that having her own children helped to fill a void but that she is still grieving. Another talked about her new family as being in no way a replacement but a continuation of her life. A memorial fund in the person's name helped one person's family because not only would good come from the death but their loved one would be remembered.

The research regarding the health problems of recently bereaved people suggests that assuming responsibility for an individual's own health is considered to be a positive step. Many people said that medication was helpful in the short term. There were also those who said that medication had not helped at all. Both sets of mourners, however, seemed to have taken control of their own health by monitoring their intake of medication and by using alternative forms of health keeping methods. Brisk walks, keeping busy, and exercise in general were proposed as being helpful. As noted in the literature review, the ability to influence aspects of one's own life are known to have a positive psychological effects (Redmond, 1991).

Memory of the loved one

The idea that their loved one would be forgotten was difficult for many. Several people indicated that this study was one way that they could keep the memory of their loved ones. Visiting the grave and having the grave well kept and near were other ways that helped people. One person thinks of her loved one with beautiful music, and, although she becomes emotional, it is a way of keeping that person close. Visiting the places that gave pleasure to the deceased was cited as being helpful as were pleasant memories, pictures, collages or having the loved one's possessions. A large funeral helped the survivors feel supported. Dreams in which the deceased gives permission to enjoy life and/or to say good-bye were important to the survivors. Comfort was obtained by the thought that a victim was trying to become closer to the family or that the family had done all they could to help the their loved one. Anniversaries such as birthdays or the anniversary of the death were always difficult. For some any memory was difficult to recall without pain. One mother said that her daughter was too young and too good to die while another said that the death had been a relief because now she was beyond more pain.

Effects of the media

The media, with one exception, were felt to have prolonged if not worsening effects on most family members. Seeing the pictures of the murder scene repeated for days or any time the case came to court was particularly distressing for families. The last category which discusses characteristics of the victim was usually presented in the context of information about the media. Families were traumatized by the way the victim or the family was portrayed in the media. The implication that it was the victim's fault was difficult to live with even if the idea could have been true. At times the bereaved gained comfort from the idea that people who thought this way would encounter unfairness in their own lives.

Additional questions about perceived support.

Results from the free response pages underscore the intense need that people have to be supported by friends, family, co-workers, and helping professionals. This support is felt in several ways. Attending the funeral, allowing the bereaved to talk, and listening to stories about the loved one are perceived as gestures that indicate a willingness to understand and be supportive. Being allowed to express feelings emerged as a theme that was especially important to families of homicide. Structured questions about perceived support were included in the survey to provide information to agencies that are routinely involved with homicidal death (see Table 13, Chapter IV).

Co-researchers identified the most frequently helpful professionals as the police (13), counselors (10), doctors (6), ministers (5), social workers (3), victims assistance group (2), Medical Examiner (1), and lawyers (1). Eighty-six people, however, did not indicate the most helpful professionals for them and 73 people answered that they had not received help from professionals.

In addition, 56 people (44%) said that friends and co-workers treated them differently after the murder. This change for most was assumed to be negative unless specified otherwise. Two people (29%) said that friends and co-workers did not treat them differently. Six people said (13%) that the treatment they received from friends and co-workers was more supportive while 3 (2%) indicated they felt that people had avoided them following the murder. Responses were missing from 15 (12%)of the returned questionnaires.

The last question "how has your marriage/relationship with significant other, been affected by the murderer?" produced 6 responses. Four people (18%) said that their marriage had been affected by the murder. Again, this change for most was assumed to be negative unless specified otherwise. Twenty-six people (20%) said no, the marriage had not changed; 28 people (22%) indicated that the relationship was stronger; 12 people (9%) reported separation as a result of the murder; 5 people (4%) reminded the researcher that their spouse was the victim and one person (1%) reported a concern about an ability to have another relationship. Twenty-nine people (23%) did not answer this question which would seem to indicate an ambivalence about the emotions that would arise as a result of the response. The data for these conclusions can be found in Table 20 *How friends* *and co-workers responded to bereaved following the murder* and Table 21 *How the relationship/marriage was affected by the murder*.

Table 20

Friends and co-workers

Response	N=	%
Yes	56	44
No	37	29
More Supportive	16	12
Avoid	03	02
Missing	15	12

Table 21

Effect on partner

Response	N=	%
Yes	24	19
No	26	20
More Supportive	28	22
Separated	12	09
Spouse Victim	05	04
? Other Relshp	01	01
Missing	29	23

Summary of qualitative findings.

The most frequently mentioned help for bereaved families of homicide victims was emotional support from family and friends. The importance of emotional support can not be over emphasized. Support seems to be a recognizable need for most people. Eighty-five percent of the sample reported that they had received support from friends and 88% reported supportiveness from family members. The emotional tone of responses was heightened for those people who felt that they had not received support from friends, family, or co-workers. Many people recognized the importance of being able to express and experience their feelings. Some people found that this overwhelmed counselors and support groups not specific to homicide.

The most frequently mentioned problematic area was overwhelming difficulties within the judicial system. People questioned the justice of trial decisions, those made by police to charge or not to charge perpetrators, and often the substance of the law itself. The consensus by those concerned with the issue was the lack of status that family survivors of a homicide victim held in the judicial system. Reactions to disclosures in the trial were individual. Some felt that their need to know the details of the death helped to complete the picture in their mind; others were distressed by the details, imagining the fear of their loved one. Portrayal of the victim as a deserving victim was particularly distressing to most.

As speculated in the research (Hartsough, 1985), it appears that a strong religious faith or enduring philosophical belief allowed people to integrate the murder into their assumptive world. The most adaptive responses were an effort by people to assume control of the rest of their lives by actively pursuing health, personal growth, and furthering the condition of the world. Some did this out of desire not to have the loved one forgotten by the world. Many mentioned the comfort memories of the deceased held for them. In a small response the police were cited as the most helpful, counselors, doctors and ministers the next most helpful. Examination of individual responses revealed that individual members of the police were helpful even though the bereaved may have been unhappy about police procedures.

Emotional tenor of language in qualitative responses.

There were a number of ideas to keep in mind throughout the qualitative analysis. It was important to remember that most writers were talking to someone they didn't know and may not be able to trust. "We are usually influenced by people we carry around in our heads. [It] usually affects us more when we write than when we speak… it affects the quality of our words" (Elbow, 1986, p. 187). Some responses were quite stilted as if worried that the reader would be critical of their natural self expression Others wrote fully, with emotion, as in a ten page letter from the sister of a homicide victim in which she assured the researcher that she had "spared [her] some of the gory details," or in a very constrained manner which also expressed a significant emotion. There were very few unemotional responses but on average the language was constricted while the emotion was high.

Expectations about words used in the responses were not realized. It was anticipated that people would use the same kinds of words for similar experiences and that these words might correlate with grief and/or stress resolution. As can be seen from the table of individual thoughts, this was not the case. A second hunch was that the language used would be vivid in an effort for people to express themselves adequately. In fact, it seems that the more traumatizing the murder the less people were able to express themselves adequately. Highly charged emotional content was often expressed in tight, constricted language. For example, a young mother of a murdered two year old with a Global Severity score of 2.68 (normal mean .32) on the SCL-90-R, reported that she had received emotional counseling in a support group and through individual counseling. Discussing her feelings of anger, she wrote, "If I am angry or upset, I take it out on him;" she ended simply by saying, "I still need a lot of help." It was almost as if the memories were so intense that family survivors could not find words to articulate their feelings and if they had the words, were afraid their use would produce overwhelming emotions.

It seems that the most articulate replies were from people who had mid-range to low Global Severity Index scores. These people often indicated that they had worked through their feelings which at one time had been more intense. One person wrote about her adopted sister who was much younger than she.

> I am as sad about my sister's life as about her death… I felt that my sister was torn between two worlds… I imagine a life of terrible struggle… I had the feeling that now we had her [after her death] and they couldn't get her.

Several people talked about the questionnaire as therapeutic. A severely traumatized woman (GSI 2.02) commented," In fact this is the first time I have allowed my feelings to be made openly." Consider this paragraph later in her reply. It also illustrates how hard it is to make generalizations about the paucity of language with deeply felt emotion.

> Each day is living in a form, but special occasions, songs, a person walking down the street who is tall with long hair, the same walk as my daughter, brings back memories. I know I will live with this until the day I die.

Not only were the written responses helpful in generating data about the issues family members of a homicide victim found to be truly the most and least helpful, they were the most effective reminder that the numbers in this study represent people who are more like us than different from us and have experienced more emotional trauma than most of us will ever encounter. The information in the data was offered at emotional expense. The language was often detached and presented as a list. Others were emotional appeals for help and understanding.

Sorrow was evident in poignant first attempts to express feelings as well as clipped concise responses. It was provided by mothers, fathers, sisters, brothers, daughters, sons, aunts, uncles, and grandparents in the hope that others would benefit from their pain. Perhaps the most important lesson from the qualitative responses is to hear the voice of these people, to appreciate their courage, and to act upon the information.

CHAPTER VI

Discussion and Implications

Introduction

Some rather significant findings emerged during the course of conducting the study and from the analysis of the data. Not all results were as anticipated and hence call for some reconsideration. That reconsideration follows the significance of the findings and is highlighted. Implications are drawn as they impact on helping professionals and secondly the implications are examined as they hold import for future research. Finally, a personal statement closes this chapter.

Discussion.

As the first known research of grief and stress reactions in families of homicide victims in Canada, the purpose of this study was exploratory and descriptive. The most significant finding was that all groups of family members of a homicide victim have some degree of post-traumatic stress and experience grief more profoundly and also for a longer duration than other people who have lost a loved one by more natural causes. A reason for the more intense grief when homicide is involved, may be that the family member has grief from at least two sources. They experience grief, not only over the victim, but also over the idea that the death could have been avoided. A third reason may be that the reactions committant with Purdue Post-traumatic Stress Disorder Scale delay, prolong and intensify emotions to such an extent that more time is needed to come to terms with what has happened. Previous researchers investigating homicide-related grief (Amick-Mcmullen, Kilpatrick. Veronen, & Smith, 1989; Bard, 1982; Bowman, 1980; Burgess, 1975; Masters, Friedman, & Getzel, 1988; Pouissant, 1984; Rinear, 1985; and Rynearson, 1984) also uncovered homicide-related intrusive recollections alternating with avoidance of such stimuli, physiological hyper-arousal, emotional liability or numbing, or impairment of social functioning.

Formal support and grief

The most surprising finding was that people who had sought counseling recorded the highest grief and stress scores. The peer support literature indicated that the counseled group would be in less stress. On reflection, the finding can be understood as a natural reaction of strong people who are aware they are encountering grief to the point of being overwhelmed. Seeking out counseling is one way that people can attempt to regain control of their lives. A still different group of respondents in this study, who had sought both peer support and counseling also recorded scores higher than people who had not sought counseling or any form of psychological intervention. One could speculate that this second group experienced the same need as the counseling group. The role played by perceived support may not be as helpful as previously thought . It may be important for the mental health of the secondary victims who could have encountered even more striking emotional difficulties if they had not felt supported. People who sought intervention were more significantly affected by the homicide than those who sought no formal support. One could reiterate that seekers of formal support do so because emotional distress became unmanageable Conversely it could mean that the people who did not feel overwhelmed by the death did not seek help.

Results of the qualitative analysis confirm the notion that perceived support is critical to bereaved family members of homicide victims. The emotional tone of people who felt that they had not received support was very high, which signifies that a lack of perceived emotional support is extremely difficult for the survivors. In the two instances where respondents mentioned that their friends knew them well enough to stay away, this distance was attributed to supportiveness.

The research hypothesis was that grief scores would lessen, the longer the period between the murder and the test taking. It is usually anticipated that grief will, for most people, develop a different, less severe quality with time (Worden, 1982). The results of this study indicate that this is not true for family survivors of homicide victims. The relationship between time and grief was not correlated as expected, although the sample size of groups within a year and over 5 years since the homicide were too small to make absolute conclusions. The time frame from 1-5 years since the murder indicates that the scores were significantly higher than for those people who had lost a loved one non-violently. The accuracy of time parameters usually thought to denote "healthy" grief responses have come into question in that grief seems to last longer than originally thought (Zisook & Lyons, 1990). Scores from the Western Canadian sample indicate that the grieving process lasts longer and is more intense than for the mourners cited by Fashingbauer (1987) It is unclear if time beyond seven years after the murder of a family member would reduce grief scores significantly.

World Assumptions and the Western Canadian respondents

It was anticipated that family members in terms of the World Assumption Scale, would experience shattered assumptions of Meaning of the World, Self-worth and Benevolence of the World. However, for a sample of students bereaved within the last three years (Schwartzberg & Janoff-Bulman, 1991) significant results were found only on the Meaningfulness of the World scale. The Western Canadian study compared non-traumatized Albertans age 19-70 years with the traumatized subjects who also ranged in age from 17-72 years. The non-traumatized Albertans found their world more meaningful than the families of homicide group who had received intervention. The Albertan group also attributed less to randomness than did the families of homicide group who had received intervention. It will be recalled, that the group who had sought counseling recorded the highest scores for grief and for Purdue Post-Traumatic Stress Disorder Scale. It would seem valid that this group, the most severely affected, would experience the most significant change in their world view.

Unlike findings in other trauma-related fields such as sexual abuse and torture where self -worth may be affected, it is to be expected that feelings of self worth may not change significantly in that most family members did not seem to feel blame for the homicide. This would account for not finding lowered self-esteem in the family members.

The insignificant change in Benevolence of the World may be directly due to the demographic make-up of Western Canada. There are four times fewer murders in Canada as in the United States of America so that Western Canadian people do not anticipate murder in everyday life. Many murders take place in cities but the responses received were often from smaller communities where support may be more of a way of life. Since quantitatively 86-88% of the respondents recorded a frequent level of support from friends and families, one could speculate that the level of support perceived by the affected family members outweighed negative perceptions that the world is not a benevolent place.

Results from the qualitative analysis indicate that while support systems may have been strained, the vast majority of family members had been comforted by friends, co-workers and for the family members. Quantitatively, on many subscales of the 4 tests, people who sought formal peer support were thought to be more resolved than people who had sought counseling, or a separate group, who had sought both peer support and counseling. Unfortunately the number of respondents in the peer support group was attenuated so that the results must be tentatively taken.

Responses on the grief scores were fascinating in that present feelings of grief for women were not significantly different than for men. Perhaps this was so because the men felt protected by anonymity and felt little need to hide their feelings. An added factor that may have facilitated honesty could have been the researchers experience and involvement with families who had also experienced the murder of a family member. The information was needed and men who had decided to contribute may have wished to make as meaningful a contribution as women. "How we decide to enter in a transaction with others linguistically, and by what exchanges, how much we wish to do so (in contrast to remaining 'detached' or otherwise 'private'), will shape our sense of what constitutes a culturally acceptable transaction" (Bruner, 1986, p. 66).

Past feelings of grief were remembered as being significantly higher by women than by men. Possibly for men, attempts to grieve come later than for women; or it could be that women remember salient emotions more accurately or more vividly than men. This gender difference was also found in the family members of homicide victims on the World Assumption Scale. Men felt more in control of their lives and felt they had more meaning in their lives. Women also reported more physical ailments than men and scored significantly higher on the phobic avoidance scale. These results point to a higher degree of internalization of feelings for women than for men and interestingly a greater likelihood of avoiding situations that are uncomfortable than for men. Traditionally, men are usually thought to be more inclined to avoid feelings than women. It is possible that women have experienced their feelings more than men and go to greater lengths to avoid the consequences of their feelings than men. Of course these latter points are speculation.

Implications for helping professionals

The dearth of literature about the traumatic experience of homicide may identify as Rando suggests (1990, in Redmond, Surviving) a reluctance to become involved with family members of homicide victims professionally, which in turn may reflect a cultural response. Although writers with experience in the field underscore the intensity of the grief and stress endured by family members, and in particular parents of homicide victims, the lack of literature implies a lack of concern on the part of helping professionals that may or may not exist. Professionals should also understand that men suffer from the loss just as much as women do but may not exhibit their grief in the same way (e.g. somatization and phobic avoidance) as women.

Efforts are underway by the Michigan State University School of Journalism (1992) to educate journalists about the effects of trauma on victims in their university and in other universities by means of videotaped training sessions. This is an area of high priority. Other areas of high priority are the police as a whole and with members of the judicial system. The effects of trauma seem to be less fully understood by police forces and in courts of law in Western Canada. Individual police officers, legal representatives and medical examiners are exceptions rather than the rule according to the qualitative responses. The most important area of concern for respondents was not being understood or accorded status in these systems. Hence it is important that an outreach education component about trauma victims be incorporated into legal and police training. Knowing small facts such as the need for written instructions for anyone in a stress situation would ease a great deal of frustration for lawyers when their traumatized clients forget what they have been told (letter to Minister of State, Hon. J. Clark, 1991).

Implications of the research

The implications of this research are far reaching. In spite of the conventional wisdom that people who develop Purdue Post-traumatic Stress Disorder are usually closest to the scene of the trauma, the results of this study clearly indicate that secondary victims are substantially susceptible to the disorder. Foy et al. (1984) were able to predict post-traumatic stress disorder scale group membership in Vietnam veterans by both pre-service and combat stress measures. Similarly

Solkoff, Gray and Keill (1986) found that the measure of combat experience and the perception of homecoming differentiated post-traumatic stress disorder from non post-traumatic stress disorder veterans. Qualitative analysis revealed that many people imagine the thoughts and feelings of their loved ones as they died. Repetitive imagining such as this would be almost like being at the scene, perhaps worse because the family member would not know the exact thoughts and feelings of their loved one, leaving the imagination free to produce countless variations of the murder. The results support Amick-McMullen, Kilpatrick and Resnick's (1991) speculation that as many as one in five immediate family survivors will develop homicide related post-traumatic stress disorder in an American national sample. Investigation of the Western Canadian Sample statistics revealed that 50 of the 127 respondents or 39% had scores up to three times as high as the normal population on the SCL-90-R. Only 30 or 23% of the total sample scored below one standard deviation above the normal score on the SCL-90-R. It is useful to note that the SCL-90-R inquires into feelings during the last week as does the PPTSD. The results, therefore, are considered to be an accurate snapshot of the way people felt as they answered the questions. Time of test taking was a source of concern for many respondents who indicated that had they replied closer to the event the responses would have been more severe.

Directions for future research

Because one of the purposes of this study was to develop a descriptive understanding, some research directions could involve different data gathering approaches. Although an effort was made to send letters of inquiry to Indian reservations, only five people identified themselves as native If next of kin was not available on the file a letter was sent to the band office. A reply was not received from any band office. Native responses have not been separated from the data. The researcher had been informed that Native American Indians prefer an oral methodology. It is strongly recommended that an inquiry into the stress and grief reactions of native individuals be pursued. Any information now available is based on assumptions that differences between Caucasian and native traditions will or will not be found. This assumption is similar to the assumption that people who belong to peer support groups will be able to resolve their grief more adequately than family members of homicide victims who do not seek psychological intervention.

It was decided that personality variables could not be examined at this time given the sensitivity of most people to inquiry into feelings. As the research progresses into the field of homicide related traumatic reactions, an investigation in to the factors that predict traumatic response is important. This research has been begun in other areas of trauma and much can be learned from results of pioneering studies such as the Buffalo Creek disaster where personality profiles were obtained after the disaster and over a two year follow up study (Gleser, Green, Winget, 1981). Prospective studies are ideal but at this point difficult to design.

Conclusion

The present author has been humbled by this research project. As a therapist, I marvel at the courage and willingness of the respondents to pick up, as it were, and continue. Their resiliency getting help and coping with often heartbreaking homicides impressed me deeply. The often expressed desire of the respondents to have the collected data used to help others has left me with a mission. Much remains to be done. I see a need for better therapy, better inservice programs for helping, legal and police personnel. The family survivors of homicide victims must be acknowledged with support, tolerance and understanding.

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APPENDIX A

LETTER OF RECRUITMENT

APPENDIX A

University of Alberta
Edmonton

Canada T6G 2G5

Department of Educational Psychology
Faculty of Education

6-102 Education North, Telephone (403) 492-5245
Fax (403) 492-1318

December 9, 1991

Dear Family Member:

This letter is to ask you to help by participating in a study, so that other people may learn from your experience as the family member of a person who has been a victim of homicide. I understand that answering questions about your experience may be painful. It is not my intention, however, to cause personal pain but to help others. The purpose of the study is to understand the feelings that family members experience when a loved one becomes a homicide victim.

People who have experienced the murder of a family member are thought to have the most extreme grief reactions of all loss groups. It is vital that all people who come in contact with the families of homicide victims, understand their grief reactions. It is just as important that members of the police and judicial system be educated to understand the difficulties imposed on families of homicide victims, so that changes in procedure can be made to provide enlightened and more appropriate ways of dealing with family members at a deeply stressful time. It is also imperative that help and counselling given by helping professions be based on sound research. The necessary knowledge to provide education and therapy can only come with your help.

Scientific research into the effect that the death of a loved one has on members of the immediate family has recently begun in the United States. This study will be the first of its kind in Canada. As a researcher, I am a mature Ph.D. student at the University of Alberta in the area of counselling psychology. I led the first formalized group for family members of victims of homicide in Edmonton. I found this group experience was moving and profound. I am convinced that the research is needed and will be useful. I also understand, that it may cause you some personal pain.

Your help would take the form of completing a 30 minute questionnaire. The questionnaire will be sent to people whose loss occurred in the last five years. Since there are no recorded data from brothers and sisters of homicide victims, it is important that all adult members of your family be given an opportunity to reply. I have enclosed a self-addressed form. If you or other family members would like to help, please return the form to me indicating the number of questionnaires and the addresses to where they are to be sent. All responses will be confidential. A compilation of the final results will be available for you to examine by request.

I am confident you will agree that the need is important.

Thank you for your attention.

Sincerely,

Betty Stevens-Guille

Betty Stevens-Guille, R.N., B.A., M.Ed.

BSG/lm
Encl.

APPENDIX B

SIGNED CONSENT FORM

Please fold on dotted lines.

I have read and understand the letter that explains the research proposed by Betty Stevens-Guille. I am aware that all responses will be confidential and at no time will my name be used. I understand that I am under no obligation to complete the questionnaire. At this time I would like to participate in the study as it is outlined. My address, completed below, will serve as my written consent to participate in this research.

Please send _____ copies of the questionnaire to:

Name (optional) ____
Address ____
____
____

APPENDIX C

THANK YOU LETTER TO RESPONDENTS

University of Alberta
Edmonton
Canada T6G 2G5

Department of Educational Psychology
Faculty of Education
6-102 Education North, Telephone (403) 492-5245
Fax (403) 492-1318

April 14, 1992

Dear Family Member:

Thank you for volunteering to participate in the "Families of Homicide Survey". Your help will provide extremely valuable information to people who work with families such as yours. I would like to remind you that the last page of the survey is designed to give your unique experience and is expected to be a source of rich knowledge.

The memories triggered by your work may be difficult to deal with and this difficulty is normal under the circumstances. If you are troubled by persistent unpleasant memories, the following are places where psychological counselling is available in your province:

- Alberta Mental Health - 6 centers are available in Alberta
- the RCMP will put you in touch with experienced counsellors and support agencies through the Victim Services Unit
- Survivors of Violent Crime is a volunteer peer association based in Edmonton.

If you are unable to access these resources, I will be available. I regret that I am not able to undertake the cost of your phone call. Please leave a message on the machine and I will return your call collect. The number is 444-8386.

If you would like to know the results of the survey, please enclose a separate mailing address on the file card provided. When the results have been compiled, I will send a synopsis of the study. Sincere thanks for your help in this most important area.

Yours truly,

Betty Stevens Guille

Betty Stevens-Guille, R.N., B.A., M.Ed.

BSG/lm
Encl.

APPENDIX D—F

LETTER TO RESPONDENTS FROM CHIEF CORONER/MEDICAL EXAMINER

APPENDIX D

Alberta
ATTORNEY GENERAL

Office of the Chief Medical Examiner
Northern Region

P.O. Box 2257, Edmonton, Alberta, Canada T5J 2P4 403/427-4987 Fax 403/422-1265

April 7, 1992

Dear Family Member,

The Office of the Chief Medical Examiner has offered to assist in research at the University of Alberta in Edmonton with a study on bereavement and grief. This research project involves families, like yours, who have suffered the loss of an individual.

The Chief Medical Examiner does not release the names of bereaved families to anyone outside the Office. We are assisting the research project by agreeing to send out information to you. We have not informed the researcher about you.

It is not our intent to intrude on you at this time, but we would like to give you the opportunity to participate in this project. If you do wish to participate, please contact the researcher by signing and returning the enclosed form.

Please note that should you feel you do not want to take part in the research at this time, you can be assured that at any later date your involvement would be most welcome. Thank you very much for considering this request.

My sincere condolences to you and your family.

Yours sincerely,

John C. Butt, MD FCRP
Chief Medical Examiner

Printed on Recycled Paper ♻

APPENDIX E

Province of British Columbia

OFFICE OF THE
CHIEF CORONER

4595 Canada Way
Burnaby
British Columbia
V5G 4L9
Telephone: (604) 660-7739

February 26, 1992

Dear Family Member,

My office has agreed to assist the University of Alberta (Edmonton) into research on bereavement and grief. This research project involves a number of families, like yours, who have suffered the loss of a family member.

The Coroners Service does not release the names of bereaved families to anyone outside our office. We are simply assisting the research project by agreeing to send out information to you.

While it is not our wish to intrude in your privacy, we would nevertheless want you to have the opportunity to participate in this project, in the hope it will help others. If you do wish to participate, please contact the researcher by signing and returning the enclosed form.

Please note that should you feel you do not want to take part in the research at this time, you can be assured that at any later date your involvement would be most welcome. Thank you very much for considering this request.

May I offer my sincere condolences to you and your family.

Sincerely,

JV Cain

J. V. Cain
Chief Coroner
Province of British Columbia

Enclosure

APPENDIX E

Manitoba

Justice
Chief Medical Examiner

Eaton Place
607-330 Graham Avenue
Winnipeg, Manitoba, CANADA
R3C 4A5
(204) 945-2088
Fax (204) 945-2442

April 7, 1992

Dear Family Member,

The Office of the Chief Medical Examiner has agreed to assist Betty Stevens-Guille at the University of Alberta in Edmonton with research into a study on bereavement and grief. This research project involves other families, like yours, who have experienced the loss of a family member by homicide.

The Chief Medical Examiner's office does not release the names of bereaved families to anyone outside this office. We are assisting the research project by agreeing to send out information to you.

It is not our intention to intrude upon you. However, we would like to give you the opportunity to take part in this project. If you would like to participate, please contact Mrs. Stevens-Guille by signing and returning the enclosed form to her.

If you decide not to become involved at the present time, your involvement, even at a later date, would be most welcome.

Thank you very much for considering this request.

My sincere condolences to you and your family.

Sincerely,

Peter H. Markesteyn, MD, FCAP
Chief Medical Examiner

APPENDIX G

UNPUBLISHED SURVEY INSTRUMENTS

APPENDIX G

These questions ask about your reactions to an event in your life. The first 11 questions ask about your reactions during the pas **seven days.** The last 4 questions ask about your reactions since the event happened.

During the past 7 days, including today...

	NOT AT ALL		MODERATELY	EXTREMELY	
	1	2	3	4	5
1. How much have you been bothered by memories or thought of the event when you didn't want to think about it?					
2. How often have you dreamed about the event?					
3. How often have you suddenly felt as if you were experiencing the event again?					
4. How much have you felt unusually distant or detached from people?					
5. To what extent have you felt that you just couldn't respond to things emotionally the way you used to?					
6. How much have you found yourself extra alert to possible danger?					
7. To what extent are you more jumpy than usual?					
8. To what extent have you had more trouble sleeping than usual?					
9. How often have you had more trouble than usual remembering things or concentrating?					
10. To what extent have you avoided activities that reminded you of the event?					
11. How much do the reactions described in items 1-10 get worse when you've been in situations that remind you of the event?					

Since the event happened...

12. To what extent have you lost interest in one or more of your usual activities (e.g., work, hobbies, exercise, sports, entertainment, church)?					
13. To what extent have you felt guilty about surviving or about what you had to do to survive during the event?					
14. How much has this event distressed or upset you?					
15. How much do you think this event would upset or distress most people?					

PART IV: PERCEIVED SUPPORT

Now please answer the following items by checking either True or False.

	TRUE	FALSE
1. I have received emotional support from friends.		
2. I have been a member of a peer support group.		
3. I have had counselling following the homicide.		
4. I have received emotional support from family members.		
5. I have received emotional support from helping professionals (e.g. police, lawyers, social workers, doctors).		

Please specify:

APPENDIX G

To what extent do you disagree/agree with each of the following statements?

	STRONGLY DISAGREE	MODER-ATELY DISAGREE	SLIGHTLY DISAGREE	SLIGHTLY AGREE	MODER-ATELY AGREE	STRONGLY AGREE
1. Misfortune is least likely to strike worthy, decent people.						
2. People are naturally unfriendly and unkind.						
3. Bad events are distributed to people at random.						
4. Human nature is basically good.						
5. The good things that happen in this world far outnumber the bad.						
6. The course of our lives is largely determined by chance.						
7. Generally, people deserve what they get in this world.						
8. I often think I am no good at all.						
9. There is more good than evil in the world.						
10. I am basically a lucky person.						
11. People's misfortunes result from mistakes they have made.						
12. People don't really care what happens to the next person.						
13. I usually behave in ways that are likely to maximize good results for me.						
14. People will experience good fortune if they themselves are good.						
15. Life is too full of uncertainties that are determined by chance.						
16. When I think about it, I consider myself very lucky.						
17. I almost always make an effort to prevent bad things from happening to me.						
18. I have a low opinion of myself.						
19. By and large, good people get what they deserve in this world.						
20. Through our actions we can prevent bad things from happening to us.						
21. Looking at my life, I realize that chance events have worked out well for me.						
22. If people took preventive actions, most misfortune could be avoided.						
23. I take the actions necessary to protect myself against misfortune.						
24. In general, life is mostly a gamble.						
25. The world is a good place.						
26. People are basically kind and helpful.						
27. I usually behave so as to bring about the greatest good for me.						
28. I am very satisfied with the kind of person I am.						
29. When bad things happen, it is typically because people have not taken the necessary actions to protect themselves.						
30. If you look closely enough, you will see that the world is full of goodness.						
31. I have reason to be ashamed of my personal character.						
32. I am luckier than most people.						

Did friends/co-workers treat you differently after the murder?

How has your marriage/relationship with significant other, been affected by the murder?

Thank you for answering all of these questions. We are also very interested in your special thoughts or comments. Please use the paper provided to tell what you have found to be helpful and what has not been helpful to you in dealing with the murder of your loved one.

APPENDIX H

DEFINITIONS

Definitions

Homicide- Homicide is murder, where the person who causes the death of a human being means to cause his death, or means to cause him bodily harm that is likely to cause his death. Murder is the first degree when a) it is planned and deliberate or when b) the victim is a person who is employed and acting in the course of his work for the preservation and the maintenance of the public peace (e.g. police officer, correctional worker) or c) when the death is caused by a person committing certain serious offenses (e.g. sexual assault, kidnapping, high jacking). All murder that is not first degree is second degree murder. Manslaughter is generally considered to be a homicide committed in the heat of passion caused by sudden provocation. A female person commits infanticide when she causes the death of her newly born child due to a disturbed state of mind as a consequence of giving birth (Juristat, 1991).

Grief- refers to the intense physiological and psychological signs experienced by one who is confronted with the loss of a love object; whereas mourning- includes the culturally sanctioned behavior of the bereaved which is considered appropriate to the loss (Switzer, 1970).

Grief reactions- refer to multiple behavioral, emotional, psychological and somatic responses experienced at the news of the death of a loved one. (Cowles, 1985)

Survivor victim- The word survivor is used in the sense of 'One who outlives another'

(Black, 1933, in Bard, Arnone, and Nemiroff, 1986) Survivor-victim refers to the relatives of those slain (Bard, Arnone, & Nemiroff, 1986, p. 292). An alternate term is

Secondary victim- is an alternate term that highlights the idea that members of the family of a homicide victim, although unprepared, are forced to deal with the police, court system and often sensationalist press thereby feeling victimized a second time Bard & Sangrey, 1979).

Grief resolution- one benchmark of a completed grief reaction is when the person is able to think of the deceased without pain. There is always a sense of sadness… but it is a different kind of sadness … it lacks the wrenching quality it previously had (Worden, 1982).

APPENDIX I

CORRELATION MATRIX

```
PRECEDING TASK REQUIRED       0.15 SECONDS CPU TIME;       0.99 SECONDS ELAPSED.

  28  0  CORRELATIONS VARS=TRIGA TO SELFW GSI AGE SEX
  29  0        VICAGE

*****PEARSON CORR PROBLEM REQUIRES   22816 BYTES WORKSPACE *****
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University of Alberta

University of Alberta

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- - - - - - - - - - - - - - -  P E A R S O N   C O R R E L A T I O N   C O E F F I C I E N T S  - - - - - - - - - - - - - -

              TRIGA      TRIGB      PTSDA      PTSDB      PTSD       SOM        OC         IS         DEP        ANX        HOS

TRIGA        1.0000      .3970      .5976      .4168      .6015      .4621      .5470      .4831      .5518      .5676      .4843
            (  127)    (  127)    (  127)    (  127)    (  127)    (  127)    (  127)    (  127)    (  127)    (  127)    (  127)
            P= .       P= .000    P= .000    P= .000    P= .000    P= .000    P= .000    P= .000    P= .000    P= .000    P= .000

TRIGB         .3970     1.0000      .5742      .4823      .5986      .3065      .3498      .2992      .4136      .4022      .3508
            (  127)    (  127)    (  127)    (  127)    (  127)    (  127)    (  127)    (  127)    (  127)    (  127)    (  127)
            P= .000    P= .       P= .000    P= .000    P= .000    P= .000    P= .000    P= .000    P= .000    P= .000    P= .000

PTSDA         .5976      .5742     1.0000      .5885      .9789      .6037      .7223      .6100      .7385      .7744      .5338
            (  127)    (  127)    (  127)    (  127)    (  127)    (  127)    (  127)    (  127)    (  127)    (  127)    (  127)
            P= .000    P= .000    P= .       P= .000    P= .000    P= .000    P= .000    P= .000    P= .000    P= .000    P= .000

PTSDB         .4168      .4823      .5885     1.0000      .7411      .3992      .4400      .3348      .5025      .4931      .3173
            (  127)    (  127)    (  127)    (  127)    (  127)    (  127)    (  127)    (  127)    (  127)    (  127)    (  127)
            P= .000    P= .000    P= .000    P= .       P= .000    P= .000    P= .000    P= .000    P= .000    P= .000    P= .000

PTSD          .6015      .5986      .9789      .7411     1.0000      .6021      .7108      .5910      .7401      .7675      .5233
            (  127)    (  127)    (  127)    (  127)    (  127)    (  127)    (  127)    (  127)    (  127)    (  127)    (  127)
            P= .000    P= .000    P= .000    P= .000    P= .       P= .000    P= .000    P= .000    P= .000    P= .000    P= .000

SOM           .4621      .3065      .6037      .3992      .6021     1.0000      .7684      .5783      .7617      .7918      .6230
            (  127)    (  127)    (  127)    (  127)    (  127)    (  127)    (  127)    (  127)    (  127)    (  127)    (  127)
            P= .000    P= .000    P= .000    P= .000    P= .000    P= .       P= .000    P= .000    P= .000    P= .000    P= .000

OC            .5470      .3498      .7223      .4400      .7108      .7684     1.0000      .7163      .8391      .8166      .5795
            (  127)    (  127)    (  127)    (  127)    (  127)    (  127)    (  127)    (  127)    (  127)    (  127)    (  127)
            P= .000    P= .000    P= .000    P= .000    P= .000    P= .000    P= .       P= .000    P= .000    P= .000    P= .000

IS            .4831      .2992      .6100      .3348      .5910      .5783      .7163     1.0000      .7374      .7800      .6769
            (  127)    (  127)    (  127)    (  127)    (  127)    (  127)    (  127)    (  127)    (  127)    (  127)    (  127)
            P= .000    P= .000    P= .000    P= .000    P= .000    P= .000    P= .000    P= .       P= .000    P= .000    P= .000

DEP           .5518      .4136      .7385      .5025      .7401      .7617      .8391      .7374     1.0000      .8384      .6598
            (  127)    (  127)    (  127)    (  127)    (  127)    (  127)    (  127)    (  127)    (  127)    (  127)    (  127)
            P= .000    P= .000    P= .000    P= .000    P= .000    P= .000    P= .000    P= .000    P= .       P= .000    P= .000

ANX           .5676      .4022      .7744      .4931      .7675      .7918      .8166      .7800      .8384     1.0000      .7108
            (  127)    (  127)    (  127)    (  127)    (  127)    (  127)    (  127)    (  127)    (  127)    (  127)    (  127)
            P= .000    P= .000    P= .000    P= .000    P= .000    P= .000    P= .000    P= .000    P= .000    P= .       P= .000

HOS           .4843      .3508      .5338      .3173      .5233      .6230      .5795      .6769      .6598      .7108     1.0000
            (  127)    (  127)    (  127)    (  127)    (  127)    (  127)    (  127)    (  127)    (  127)    (  127)    (  127)
            P= .000    P= .000    P= .000    P= .000    P= .000    P= .000    P= .000    P= .000    P= .000    P= .000    P= .

(COEFFICIENT / (CASES) / 1-TAILED SIG)          " . " IS PRINTED IF A COEFFICIENT CANNOT BE COMPUTED
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19 Aug 92    SPSS-X RELEASE 3.0 FOR IBM MTS                                                                   Page 97
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 - - - - - - - - - - - - - -  P E A R S O N   C O R R E L A T I O N   C O E F F I C I E N T S  - - - - - - - - - - - - - -

               TRIGA     TRIGB     PTSDA     PTSDB     PTSD      SOM       OC        IS        DEP       ANX       HOS

PHO            .3607     .2792     .6417     .3295     .6161     .5532     .6202     .6205     .5930     .7450     .4357
            (  127)   (  127)   (  127)   (  127)   (  127)   (  127)   (  127)   (  127)   (  127)   (  127)   (  127)
            P= .000   P= .001   P= .000   P= .000   P= .000   P= .000   P= .000   P= .000   P= .000   P= .000   P= .000

PAI            .4260     .2364     .5846     .3935     .5848     .6274     .7064     .7937     .6686     .7608     .7024
            (  127)   (  127)   (  127)   (  127)   (  127)   (  127)   (  127)   (  127)   (  127)   (  127)   (  127)
            P= .000   P= .004   P= .000   P= .000   P= .000   P= .000   P= .000   P= .000   P= .000   P= .000   P= .000

PSY            .4175     .3568     .6470     .4232     .6441     .6935     .7277     .7822     .7679     .7871     .6856
            (  127)   (  127)   (  127)   (  127)   (  127)   (  127)   (  127)   (  127)   (  127)   (  127)   (  127)
            P= .000   P= .000   P= .000   P= .000   P= .000   P= .000   P= .000   P= .000   P= .000   P= .000   P= .000

ADD            .4962     .4147     .6786     .4243     .6706     .6854     .7158     .6587     .8048     .7719     .5968
            (  127)   (  127)   (  127)   (  127)   (  127)   (  127)   (  127)   (  127)   (  127)   (  127)   (  127)
            P= .000   P= .000   P= .000   P= .000   P= .000   P= .000   P= .000   P= .000   P= .000   P= .000   P= .000

GSI            .5712     .4030     .7708     .4815     .7616     .8430     .8936     .8574     .9195     .9404     .7700
            (  127)   (  127)   (  127)   (  127)   (  127)   (  127)   (  127)   (  127)   (  127)   (  127)   (  127)
            P= .000   P= .000   P= .000   P= .000   P= .000   P= .000   P= .000   P= .000   P= .000   P= .000   P= .000

BP            -.2038    -.1237    -.3352    -.1399    -.3136    -.2736    -.3407    -.5040    -.3515    -.3919    -.4032
            (  126)   (  126)   (  126)   (  126)   (  126)   (  126)   (  126)   (  126)   (  126)   (  126)   (  126)
            P= .011   P= .084   P=  000   P= .059   P= .000   P= .001   P= .000   P= .000   P= .000   P= .000   P= .000

BW            -.1996    -.1794    -.3087    -.2776    -.3265    -.2839    -.2946    -.3270    -.3455    -.4050    -.3845
            (  126)   (  126)   (  126)   (  126)   (  126)   (  126)   (  126)   (  126)   (  126)   (  126)   (  126)
            P= .013   P= .022   P= .000   P= .001   P= .000   P= .001   P= .000   P= .000   P= .000   P= .000   P= .000

JU            -.1537    -.2140    -.2998    -.3577    -.3392    -.2037    -.2105    -.0776    -.2071    -.2366    -.1763
            (  126)   (  126)   (  126)   (  126)   (  126)   (  126)   (  126)   (  126)   (  126)   (  126)   (  126)
            P= .043   P= .008   P= .000   P= .000   P= .000   P= .011   P= .009   P= .194   P= .010   P= .004   P= .024

C             -.1815    -.2308    -.2121    -.1762    -.2206    -.1229    -.0784    -.0246    -.1108    -.0630    -.0217
            (  126)   (  126)   (  126)   (  126)   (  126)   (  126)   (  126)   (  126)   (  126)   (  126)   (  126)
            P= .021   P= .005   P= .009   P= .024   P= .007   P= .085   P= .191   P= .392   P= .108   P= .242   P= .405

R              .2256     .1134     .1770     .1904     .1951    -.0447     .0563     .0754     .0489     .1218     .0510
            (  126)   (  126)   (  126)   (  126)   (  126)   (  126)   (  126)   (  126)   (  126)   (  126)   (  126)
            P= .006   P= .103   P= .024   P= .016   P= .014   P= .310   P= .266   P= .201   P= .293   P= .087   P= .285

SW            -.2285    -.1385    -.3569    -.2447    -.3582    -.3244    -.4451    -.5649    -.5123    -.4107    -.3667
            (  126)   (  126)   (  126)   (  126)   (  126)   (  126)   (  126)   (  126)   (  126)   (  126)   (  126)
            P= .005   P= .061   P= .000   P= .003   P= .000   P= .000   P= .000   P= .000   P= .000   P= .000   P= .000

(COEFFICIENT / (CASES) / 1-TAILED SIG)          " . " IS PRINTED IF A COEFFICIENT CANNOT BE COMPUTED
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- - - - - - - - - - - - - -  P E A R S O N   C O R R E L A T I O N   C O E F F I C I E N T S  - - - - - - - - - - - - - -

             TRIGA      TRIGB      PTSDA      PTSDB      PTSD       SOM        OC         IS         DEP        ANX        HOS

SC           -.1832     -.1121     -.1112     -.0168     -.0966     -.1825     -.1912     -.0691     -.1519     -.1255     -.1699
            (  126)    (  126)    (  126)    (  126)    (  126)    (  126)    (  126)    (  126)    (  126)    (  126)    (  126)
            P= .020    P= .106    P= .108    P= .426    P= .141    P= .020    P= .016    P= .221    P= .045    P= .081    P= .029

L            -.2659     -.2891     -.4419     -.3249     -.4489     -.4103     -.4813     -.3750     -.4755     -.4118     -.4111
            (  126)    (  126)    (  126)    (  126)    (  126)    (  126)    (  126)    (  126)    (  126)    (  126)    (  126)
            P= .001    P= .001    P= .000    P= .000    P= .000    P= .000    P= .000    P= .000    P= .000    P= .000    P= .000

BENW         -.2241     -.1704     -.3570     -.2367     -.3562     -.3103     -.3516     -.4560     -.3873     -.4434     -.4373
            (  126)    (  126)    (  126)    (  126)    (  126)    (  126)    (  126)    (  126)    (  126)    (  126)    (  126)
            P= .006    P= .028    P= .000    P= .004    P= .000    P= .000    P= .000    P= .000    P= .000    P= .000    P= .000

MW           -.2753     -.2689     -.3313     -.3467     -.3626     -.1294     -.1628     -.0861     -.1734     -.2008     -.1167
            (  126)    (  126)    (  126)    (  126)    (  126)    (  126)    (  126)    (  126)    (  126)    (  126)    (  126)
            P= .001    P= .001    P= .000    P= .000    P= .000    P= .074    P= .034    P= .169    P= .026    P= .012    P= .097

SELFW        -.3075     -.2496     -.4232     -.2770     -.4213     -.4216     -.5146     -.4678     -.5264     -.4386     -.4361
            (  126)    (  126)    (  126)    (  126)    (  126)    (  126)    (  126)    (  126)    (  126)    (  126)    (  126)
            P= .000    P= .002    P= .000    P= .001    P= .000    P= .000    P= .000    P= .000    P= .000    P= .000    P= .000

GSI           .5712      .4030      .7708      .4815      .7616      .8430      .8936      .8574      .9195      .9404      .7700
            (  127)    (  127)    (  127)    (  127)    (  127)    (  127)    (  127)    (  127)    (  127)    (  127)    (  127)
            P= .000    P= .000    P= .000    P= .000    P= .000    P= .000    P= .000    P= .000    P= .000    P= .000    P= .000

AGE          -.3696      .0055     -.1140     -.0683     -.1119     -.1178     -.1265     -.3242     -.1776     -.2185     -.4139
            (  127)    (  127)    (  127)    (  127)    (  127)    (  127)    (  127)    (  127)    (  127)    (  127)    (  127)
            P= .000    P= .476    P= .101    P= .223    P= .105    P= .094    P= .078    P= .000    P= .023    P= .007    P= .000

SEX           .1735      .1575      .1667      .1134      .1670      .1756      .1107      .0865      .1434      .1900      .0492
            (  127)    (  127)    (  127)    (  127)    (  127)    (  127)    (  127)    (  127)    (  127)    (  127)    (  127)
            P= .026    P= .038    P= .031    P= .102    P= .030    P= .024    P= .108    P= .167    P= .054    P= .016    P= .291

VICAGE       -.2389     -.1488     -.2259     -.2198     -.2431     -.2880     -.3238     -.2023     -.2465     -.2737     -.2129
            (  127)    (  127)    (  127)    (  127)    (  127)    (  127)    (  127)    (  127)    (  127)    (  127)    (  127)
            P= .003    P= .047    P= .005    P= .007    P= .003    P= .001    P= .000    P= .011    P= .003    P= .001    P= .008

(COEFFICIENT / (CASES) / 1-TAILED SIG)          " . " IS PRINTED IF A COEFFICIENT CANNOT BE COMPUTED
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- - - - - - - - - - - - - -  P E A R S O N   C O R R E L A T I O N   C O E F F I C I E N T S  - - - - - - - - - - - - - -

              PHO        PAI        PSY        ADD        GSI        BP         BW         JU         C          R          SW

TRIGA         .3607      .4260      .4175      .4962      .5712     -.2038     -.1996     -.1537     -.1815      .2256     -.2285
            (  127)    (  127)    (  127)    (  127)    (  127)    (  126)    (  126)    (  126)    (  126)    (  126)    (  126)
            P= .000    P= .000    P= .000    P= .000    P= .000    P= .011    P= .013    P= .043    P= .021    P= .006    P= .005

TRIGB         .2792      .2364      .3568      .4147      .4030     -.1237     -.1794     -.2140     -.2308      .1134     -.1385
            (  127)    (  127)    (  127)    (  127)    (  127)    (  126)    (  126)    (  126)    (  126)    (  126)    (  126)
            P= .001    P= .004    P= .000    P= .000    P= .000    P= .084    P= .022    P= .008    P= .005    P= .103    P= .061

PTSDA         .6417      .5846      .6470      .6786      .7708     -.3352     -.3087     -.2998     -.2121      .1770     -.3569
            (  127)    (  127)    (  127)    (  127)    (  127)    (  126)    (  126)    (  126)    (  126)    (  126)    (  126)
            P= .000    P= .000    P= .000    P= .000    P= .000    P= .000    P= .000    P= .000    P= .009    P= .024    P= .000

PTSDB         .3295      .3935      .4232      .4243      .4815     -.1399     -.2776     -.3577     -.1762      .1904     -.2447
            (  127)    (  127)    (  127)    (  127)    (  127)    (  126)    (  126)    (  126)    (  126)    (  126)    (  126)
            P= .000    P= .000    P= .000    P= .000    P= .000    P= .059    P= .001    P= .000    P= .024    P= .016    P= .003

PTSD          .6161      .5848      .6441      .6706      .7616     -.3136     -.3265     -.3392     -.2206      .1951     -.3582
            (  127)    (  127)    (  127)    (  127)    (  127)    (  126)    (  126)    (  126)    (  126)    (  126)    (  126)
            P= .000    P= .000    P= .000    P= .000    P= .000    P= .000    P= .000    P= .000    P= .007    P= .014    P= .000

SOM           .5532      .6274      .6935      .6854      .8430     -.2736     -.2839     -.2037     -.1229     -.0447     -.3244
            (  127)    (  127)    (  127)    (  127)    (  127)    (  126)    (  126)    (  126)    (  126)    (  126)    (  126)
            P= .000    P= .000    P= .000    P= .000    P= .000    P= .001    P= .001    P= .011    P= .085    P= .310    P= .000

OC            .6202      .7064      .7277      .7158      .8936     -.3407     -.2946     -.2105     -.0784      .0563     -.4451
            (  127)    (  127)    (  127)    (  127)    (  127)    (  126)    (  126)    (  126)    (  126)    (  126)    (  126)
            P= .000    P= .000    P= .000    P= .000    P= .000    P= .000    P= .000    P= .009    P= .191    P= .266    P= .000

IS            .6205      .7937      .7822      .6587      .8574     -.5040     -.3270     -.0776     -.0246      .0754     -.5649
            (  127)    (  127)    (  127)    (  127)    (  127)    (  126)    (  126)    (  126)    (  126)    (  126)    (  126)
            P= .000    P= .000    P= .000    P= .000    P= .000    P= .000    P= .000    P= .194    P= .392    P= .201    P= .000

DEP           .5930      .6686      .7679      .8048      .9195     -.3515     -.3455     -.2071     -.1108      .0489     -.5123
            (  127)    (  127)    (  127)    (  127)    (  127)    (  126)    (  126)    (  126)    (  126)    (  126)    (  126)
            P= .000    P= .000    P= .000    P= .000    P= .000    P= .000    P= .000    P= .010    P= .108    P= .293    P= .000

ANX           .7450      .7608      .7871      .7719      .9404     -.3919     -.4050     -.2366     -.0630      .1218     -.4107
            (  127)    (  127)    (  127)    (  127)    (  127)    (  126)    (  126)    (  126)    (  126)    (  126)    (  126)
            P= .000    P= .000    P= .000    P= .000    P= .000    P= .000    P= .000    P= .004    P= .242    P= .087    P= .000

HOS           .4357      .7024      .6856      .5968      .7700     -.4032     -.3845     -.1763     -.0217      .0510     -.3667
            (  127)    (  127)    (  127)    (  127)    (  127)    (  126)    (  126)    (  126)    (  126)    (  126)    (  126)
            P= .000    P= .000    P= .000    P= .000    P= .000    P= .000    P= .000    P= .024    P= .405    P= .285    P= .000

(COEFFICIENT / (CASES) / 1-TAILED SIG)          " . " IS PRINTED IF A COEFFICIENT CANNOT BE COMPUTED
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            PHO       PAI       PSY       ADD       GSI       BP        BW        JU        C         R         SW

PHO       1.0000     .6028     .6064     .5919     .7277    -.3115    -.2604    -.1873    -.0410     .1175    -.4106
         (  127)   (  127)   (  127)   (  127)   (  127)   (  126)   (  126)   (  126)   (  126)   (  126)   (  126)
         P= .      P= .000   P= .000   P= .000   P= .000   P= .000   P= .002   P= .018   P= .324   P= .095   P= .000

PAI        .6028    1.0000     .7461     .6054     .8307    -.5743    -.4335    -.0584     .1026     .0848    -.3962
         (  127)   (  127)   (  127)   (  127)   (  127)   (  126)   (  126)   (  126)   (  126)   (  126)   (  126)
         P= .000   P= .      P= .000   P= .000   P= .000   P= .000   P= .000   P= .258   P= .126   P= .172   P= .000

PSY        .6064     .7461    1.0000     .7175     .8755    -.4073    -.2785    -.1095     .0176     .0848    -.4987
         (  127)   (  127)   (  127)   (  127)   (  127)   (  126)   (  126)   (  126)   (  126)   (  126)   (  126)
         P= .000   P= .000   P= .      P= .000   P= .000   P= .000   P= .001   P= .111   P= .422   P= .173   P= .000

ADD        .5919     .6054     .7175    1.0000     .8407    -.2453    -.2527    -.1530    -.1333     .0626    -.4141
         (  127)   (  127)   (  127)   (  127)   (  127)   (  126)   (  126)   (  126)   (  126)   (  126)   (  126)
         P= .000   P= .000   P= .000   P= .      P= .000   P= .003   P= .002   P= .044   P= .068   P= .243   P= .000

GSI        .7277     .8307     .8755     .8407    1.0000    -.4345    -.3768    -.1963    -.0661     .0735    -.5096
         (  127)   (  127)   (  127)   (  127)   (  127)   (  126)   (  126)   (  126)   (  126)   (  126)   (  126)
         P= .000   P= .000   P= .000   P= .000   P= .      P= .000   P= .000   P= .014   P= .231   P= .207   P= .000

BP        -.3115    -.5743    -.4073    -.2453    -.4345    1.0000     .6168    -.0015    -.0398    -.0508     .3617
         (  126)   (  126)   (  126)   (  126)   (  126)   (  126)   (  126)   (  126)   (  126)   (  126)   (  126)
         P= .000   P= .000   P= .000   P= .003   P= .000   P= .      P= .000   P= .493   P= .329   P= .286   P= .000

BW        -.2604    -.4335    -.2785    -.2527    -.3768     .6168    1.0000     .1829     .0405     .1044     .1867
         (  126)   (  126)   (  126)   (  126)   (  126)   (  126)   (  126)   (  126)   (  126)   (  126)   (  126)
         P= .002   P= .000   P= .001   P= .002   P= .000   P= .000   P= .      P= .020   P= .326   P= .122   P= .018

JU        -.1873    -.0584    -.1095    -.1530    -.1963    -.0015     .1829    1.0000     .5807     .0191     .0113
         (  126)   (  126)   (  126)   (  126)   (  126)   (  126)   (  126)   (  126)   (  126)   (  126)   (  126)
         P= .018   P= .258   P= .111   P= .044   P= .014   P= .493   P= .020   P= .      P= .000   P= .416   P= .450

C         -.0410     .1026     .0176    -.1333    -.0661    -.0398     .0405     .5807    1.0000    -.0733     .0432
         (  126)   (  126)   (  126)   (  126)   (  126)   (  126)   (  126)   (  126)   (  126)   (  126)   (  126)
         P= .324   P= .126   P= .422   P= .068   P= .231   P= .329   P= .326   P= .000   P= .      P= .207   P= .316

R          .1175     .0848     .0848     .0626     .0735    -.0508     .1044     .0191    -.0733    1.0000    -.0756
         (  126)   (  126)   (  126)   (  126)   (  126)   (  126)   (  126)   (  126)   (  126)   (  126)   (  126)
         P= .095   P= .172   P= .173   P= .243   P= .207   P= .286   P= .122   P= .416   P= .207   P= .      P= .200

SW        -.4106    -.3962    -.4987    -.4141    -.5096     .3617     .1867     .0113     .0432    -.0756    1.0000
         (  126)   (  126)   (  126)   (  126)   (  126)   (  126)   (  126)   (  126)   (  126)   (  126)   (  126)
         P= .000   P= .000   P= .000   P= .000   P= .000   P= .000   P= .018   P= .450   P= .316   P= .200   P= .

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- - - - - - - - - - - - - -  P E A R S O N   C O R R E L A T I O N   C O E F F I C I E N T S  - - - - - - - - - - - - - -

              PHO        PAI        PSY        ADD        GSI        BP         BW         JU         C          R          SW

SC          -.0218     -.0450     -.0400     -.1459     -.1412      .0506      .1215      .2544      .4006     -.0271      .2201
           (  126)    (  126)    (  126)    (  126)    (  126)    (  126)    (  126)    (  126)    (  126)    (  126)    (  126)
           P= .404    P= .308    P= .328    P= .052    P= .057    P= .287    P= .088    P= .002    P= .000    P= .382    P= .007

L           -.3200     -.3335     -.3756     -.3598     -.47[illegible]3      .4452      .5588      .3127      .2719      .0580      .4259
           (  126)    (  126)    (  126)    (  126)    (  126)    (  126)    (  126)    (  126)    (  126)    (  126)    (  126)
           P= .000    P= .000    P= .000    P= .000    P= .000    P= .000    P= .000    P= .000    P= .001    P= .259    P= .000

BENW        -.3162     -.5555     -.3769     -.2771     -.4490      .8858      .9116      .1070      .0031      .0350      .2989
           (  126)    (  126)    (  126)    (  126)    (  126)    (  126)    (  126)    (  126)    (  126)    (  126)    (  126)
           P= .000    P= .000    P= .000    P= .001    P= .000    P= .000    P= .000    P= .116    P= .486    P= .349    P= .000

MW          -.1655     -.0197     -.0846     -.1671     -.1592      .0060      .0486      .7278      .7925     -.5441      .0654
           (  126)    (  126)    (  126)    (  126)    (  126)    (  126)    (  126)    (  126)    (  126)    (  126)    (  126)
           P= .032    P= .413    P= .173    P= .031    P= .038    P= .473    P= .294    P= .000    P= .000    P= .000    P= .233

SELFW       -.3519     -.3612     -.4264     -.4227     -.5184      .4027      .4074      .2606      .3137     -.0167      .7507
           (  126)    (  126)    (  126)    (  126)    (  126)    (  126)    (  126)    (  126)    (  126)    (  126)    (  126)
           P= .000    P= .000    P= .000    P= .000    P= .000    P= .000    P= .000    P= .002    P= .000    P= .426    P= .000

GSI          .7277      .8307      .8755      .8407     1.0000     -.4345     -.3768     -.1963     -.0661      .0735     -.5096
           (  127)    (  127)    (  127)    (  127)    (  127)    (  126)    (  126)    (  126)    (  126)    (  126)    (  126)
           P= .000    P= .000    P= .000    P= .000    P= .       P= .000    P= .000    P= .014    P= .231    P= .207    P= .000

AGE         -.1432     -.3627     -.2826     -.1204     -.2513      .2610      .2036     -.0192      .0469     -.2308      .2470
           (  127)    (  127)    (  127)    (  127)    (  127)    (  126)    (  126)    (  126)    (  126)    (  126)    (  126)
           P= .054    P= .000    P= .001    P= .089    P= .002    P= .002    P= .011    P= .415    P= .301    P= .005    P= .003

SEX          .2933      .0675      .0758      .2539      .1674      .0598     -.0263     -.1824     -.1832      .0551     -.0026
           (  127)    (  127)    (  127)    (  127)    (  127)    (  126)    (  126)    (  126)    (  126)    (  126)    (  126)
           P= .000    P= .226    P= .198    P= .002    P= .030    P= .253    P= .385    P= .020    P= .020    P= .270    P= .489

VICAGE      -.1637     -.2260     -.2687     -.2573     -.2899      .1673      .2452      .0651      .0885     -.0698      .2315
           (  127)    (  127)    (  127)    (  127)    (  127)    (  126)    (  126)    (  126)    (  126)    (  126)    (  126)
           P= .033    P= .005    P= .001    P= .002    P= .000    P= .031    P= .003    P= .235    P= .162    P= .219    P= .005

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              SC          L         BENW        MW        SELFW        GSI        AGE         SEX        VICAGE

TRIGA       -.1832     -.2659     -.2241     -.2753     -.3075      .5712     -.3696      .1735     -.2389
           (  126)    (  126)    (  126)    (  126)    (  126)    (  127)    (  127)    (  127)    (  127)
           P= .020    P= .001    P= .006    P= .001    P= .000    P= .000    P= .000    P= .026    P= .003

TRIGB       -.1121     -.2891     -.1704     -.2689     -.2496      .4030      .0055      .1575     -.1488
           (  126)    (  126)    (  126)    (  126)    (  126)    (  127)    (  127)    (  127)    (  127)
           P= .106    P= .001    P= .028    P= .001    P= .002    P= .000    P= .476    P= .038    P= .047

PTSDA       -.1112     -.4419     -.3570     -.3313     -.4232      .7708     -.1140      .1667     -.2259
           (  126)    (  126)    (  126)    (  126)    (  126)    (  127)    (  127)    (  127)    (  127)
           P= .108    P= .000    P= .000    P= .000    P= .000    P= .000    P= .101    P= .031    P= .005

PTSDB       -.0168     -.3249     -.2367     -.3467     -.2770      .4815     -.0683      .1134     -.2198
           (  126)    (  126)    (  126)    (  126)    (  126)    (  127)    (  127)    (  127)    (  127)
           P= .426    P= .000    P= .004    P= .000    P= .001    P= .000    P= .223    P= .102    P= .007

PTSD        -.0966     -.4489     -.3562     -.3626     -.4213      .7616     -.1119      .1670     -.2431
           (  126)    (  126)    (  126)    (  126)    (  126)    (  127)    (  127)    (  127)    (  127)
           P= .141    P= .000    P= .000    P= .000    P= .000    P= .000    P= .105    P= .030    P= .003

SOM         -.1825     -.4103     -.3103     -.1294     -.4216      .8430     -.1178      .1756     -.2880
           (  126)    (  126)    (  126)    (  126)    (  126)    (  127)    (  127)    (  127)    (  127)
           P= .020    P= .000    P= .000    P= .074    P= .000    P= .000    P= .094    P= .024    P= .001

OC          -.1912     -.4813     -.3516     -.1628     -.5146      .8936     -.1265      .1107     -.3238
           (  126)    (  126)    (  126)    (  126)    (  126)    (  127)    (  127)    (  127)    (  127)
           P= .016    P= .000    P= .000    P= .034    P= .000    P= .000    P= .078    P= .108    P= .000

IS          -.0691     -.3750     -.4560     -.0861     -.4678      .8574     -.3242      .0865     -.2023
           (  126)    (  126)    (  126)    (  126)    (  126)    (  127)    (  127)    (  127)    (  127)
           P= .221    P= .000    P= .000    P= .169    P= .000    P= .000    P= .000    P= .167    P= .011

DEP         -.1519     -.4755     -.3873     -.1734     -.5264      .9195     -.1776      .1434     -.2465
           (  126)    (  126)    (  126)    (  126)    (  126)    (  127)    (  127)    (  127)    (  127)
           P= .045    P= .000    P= .000    P= .026    P= .000    P= .000    P= .023    P= .054    P= .003

ANX         -.1255     -.4118     -.4434     -.2008     -.4386      .9404     -.2165      .1900     -.2737
           (  126)    (  126)    (  126)    (  126)    (  126)    (  127)    (  127)    (  127)    (  127)
           P= .081    P= .000    P= .000    P= .012    P= .000    P= .000    P= .007    P= .016    P= .001

HOS         -.1699     -.4111     -.4373     -.1167     -.4361      .7700     -.4139      .0492     -.2129
           (  126)    (  126)    (  126)    (  126)    (  126)    (  127)    (  127)    (  127)    (  127)
           P= .029    P= .000    P= .000    P= .097    P= .000    P= .000    P= [illegible]    P= .291    P= .008

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- - - - - - - - - - - - - - -  P E A R S O N   C O R R E L A T I O N   C O E F F I C I E N T S  - - - - - - - - - - - - - - -

             SC          L          BENW        MW          SELFW       GSI         AGE         SEX         VICAGE

PHO        -.0218      -.3200      -.3162      -.1655      -.3519       .7277      -.1432       .2933      -.1637
           (  126)     (  126)     (  126)     (  126)     (  126)     (  127)     (  127)     (  127)     (  127)
           P= .404     P= .000     P= .000     P= .032     P= .000     P= .000     P= .054     P= .000     P= .033

PAI        -.0450      -.3335      -.5555      -.0197      -.3612       .8307      -.3627       .0675      -.2260
           (  126)     (  126)     (  126)     (  126).    (  126)     (  127)     (  127)     (  127)     (  127)
           P= .308     P= .000     P= .000     P= .413     P= .000     P= .000     P= .000     P= .226     P= .005

PSY        -.0400      -.3756      -.3769      -.0846      -.4264       .8755      -.2826       .0758      -.2687
           (  126)     (  126)     (  126)     (  126)     (  126)     (  127)     (  127)     (  127)     (  127)
           P= .328     P= .000     P= .000     P= .173     P= .000     P= .000     P= .001     P= .198     P= .001

ADD        -.1459      -.3598      -.2771      -.1671      -.4227       .8407      -.1204       .2539      -.2573
           (  126)     (  126)     (  126)     (  126)     (  126)     (  127)     (  127)     (  127)     (  127)
           P= .052     P= .000     P= .001     P= .031     P= .000     P= .000     P= .089     P= .002     P= .002

GSI        -.1412      -.4703      -.4490      -.1592      -.5184      1.0000      -.2513       .1674      -.2899
           (  126)     (  126)     (  126)     (  126)     (  126)     (  127)     (  127)     (  127)     (  127)
           P= .057     P= .000     P= .000     P= .038     P= .000     P= .        P= .002     P= .030     P= .000

BP          .0506       .4452       .8858       .0060       .4027      -.4345       .2610       .0598       .1673
           (  126)     (  126)     (  126)     (  126)     (  126)     (  126)     (  126)     (  126)     (  126)
           P= .287     P= .000     P= .000     P= .473     P= .000     P= .000     P= .002     P= .253     P= .031

BW          .1215       .5588       .9116       .0486       .4074      -.3768       .2036      -.0263       .2452
           (  126)     (  126)     (  126)     (  126)     (  126)     (  126)     (  126)     (  126)     (  126)
           P= .088     P= .000     P= .000     P= .294     P= .000     P= .000     P= .011     P= .385     P= .003

JU          .2544       .3127       .1070       .7278       .2606      -.1963      -.0192      -.1824       .0651
           (  126)     (  126)     (  126)     (  126)     (  126)     (  126)     (  126)     (  126)     (  126)
           P= .002     P= .000     P= .116     P= .000     P= .002     P= .014     P= .415     P= .020     P= .235

C           .4006       .2719       .0031       .7925       .3137      -.0661       .0469      -.1832       .0885
           (  126)     (  126)     (  126)     (  126)     (  126)     (  126)     (  126)     (  126)     (  126)
           P= .000     P= .001     P= .486     P= .000     P= .000     P= .231     P= .301     P= .020     P= .162

R          -.0271       .0580       .0350      -.5441      -.0167       .0735      -.2308       .0551      -.0698
           (  126)     (  126)     (  126)     (  126)     (  126)     (  126)     (  126)     (  126)     (  126)
           P= .382     P= .259     P= .349     P= .000     P= .426     P= .207     P= .005     P= .270     P= .219

SW          .2201       .4259       .2989       .0654       .7507      -.5096       .2470      -.0026       .2315
           (  126)     (  126)     (  126)     (  126)     (  126)     (  126)     (  126)     (  126)     (  126)
           P= .007     P= .000     P= .000     P= .233     P= .000     P= .000     P= .003     P= .489     P= .005

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19 Aug 92    SPSS-X RELEASE 3.0 FOR IBM MTS                                                                          Page 104
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- - - - - - - - - - - - - - - -  P E A R S O N   C O R R E L A T I O N   C O E F F I C I E N T S  - - - - - - - - - - - - - - - -

              SC          L           BENW        MW          SELFW       GSI         AGE         SEX         VICAGE

SC            1.0000       .3133       .0981       .3261       .6547      -.1412       .0326      -.0390       .1372
             (  126)     (  126)     (  126)     (  126)     (  126)     (  126)     (  126)     (  126)     (  126)
             P= .        P= .000     P= .137     P= .000     P= .000     P= .057     P= .359     P= .332     P= .063

L              .3133      1.0000       .5619       .2452       .8092      -.4703       .1418      -.0335       .3764
             (  126)     (  126)     (  126)     (  126)     (  126)     (  126)     (  126)     (  126)     (  126)
             P= .000     P= .        P= .000     P= .003     P= .000     P= .000     P= .057     P= .355     P= .000

BENW           .0981       .5619      1.0000       .0318       .4505      -.4490       .2563       .0158       .2319
             (  126)     (  126)     (  126)     (  126)     (  126)     (  126)     (  126)     (  126)     (  126)
             P= .137     P= .000     P= .        P= .362     P= .000     P= .000     P= .002     P= .430     P= .004

MW             .3251       .2452       .0318      1.0000       .2807      -.1592       .1337      -.2011       .1090
             (  126)     (  126)     (  126)     (  126)     (  126)     (  126)     (  126)     (  126)     (  126)
             P= .000     P= .003     P= .362     P= .        P= .001     P= .038     P= .068     P= .012     P= .112

SELFW          .6547       .8092       .4505       .2807      1.0000      -.5184       .1946      -.0332       .3446
             (  126)     (  126)     (  126)     (  126)     (  126)     (  126)     (  126)     (  126)     (  126)
             P= .000     P= .000     P= .000     P= .001     P= .        P= .000     P= .014     P= .356     P= .000

GSI           -.1412      -.4703      -.4490      -.1592      -.5184      1.0000      -.2513       .1674      -.2899
             (  126)     (  126)     (  126)     (  126)     (  126)     (  127)     (  127)     (  127)     (  127)
             P= .057     P= .000     P= .000     P= .038     P= .000     P= .        P= .002     P= .030     P= .000

AGE            .0326       .1418       .2563       .1337       .1946      -.2513      1.0000      -.0124       .2380
             (  126)     (  126)     (  126)     (  126)     (  126)     (  127)     (  127)     (  127)     (  127)
             P= .359     P= .057     P= .002     P= .068     P= .014     P= .002     P= .        P= .445     P= .004

SEX           -.0390      -.0335       .0158      -.2011      -.0332       .1674      -.0124      1.0000       .1074
             (  126)     (  126)     (  126)     (  126)     (  126)     (  127)     (  127)     (  127)     (  127)
             P= .332     P= .355     P= .430     P= .012     P= .356     P= .030     P= .445     P= .        P= .115

VICAGE         .1372       .3764       .2319       .1090       .3446      -.2899       .2380       .1074      1.0000
             (  126)     (  126)     (  126)     (  126)     (  126)     (  127)     (  127)     (  127)     (  127)
             P= .063     P= .000     P= .004     P= .112     P= .000     P= .000     P= .004     P= .115     P= .

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